

FIG. 1

102

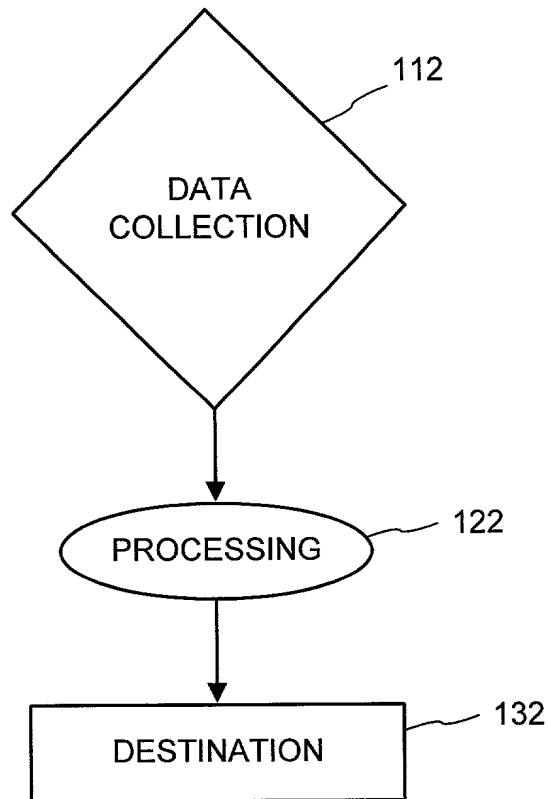


FIG. 2

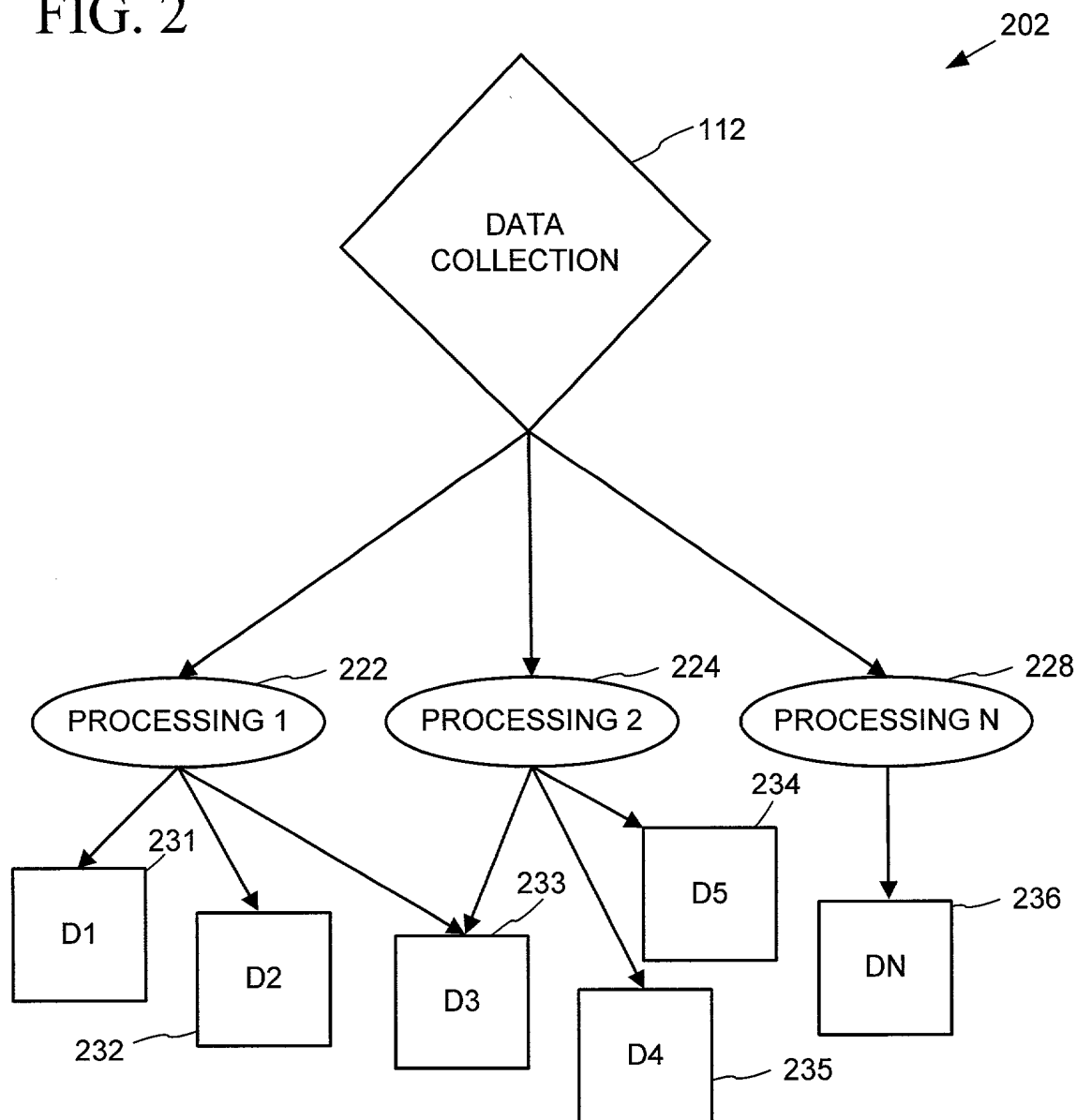


FIG. 3

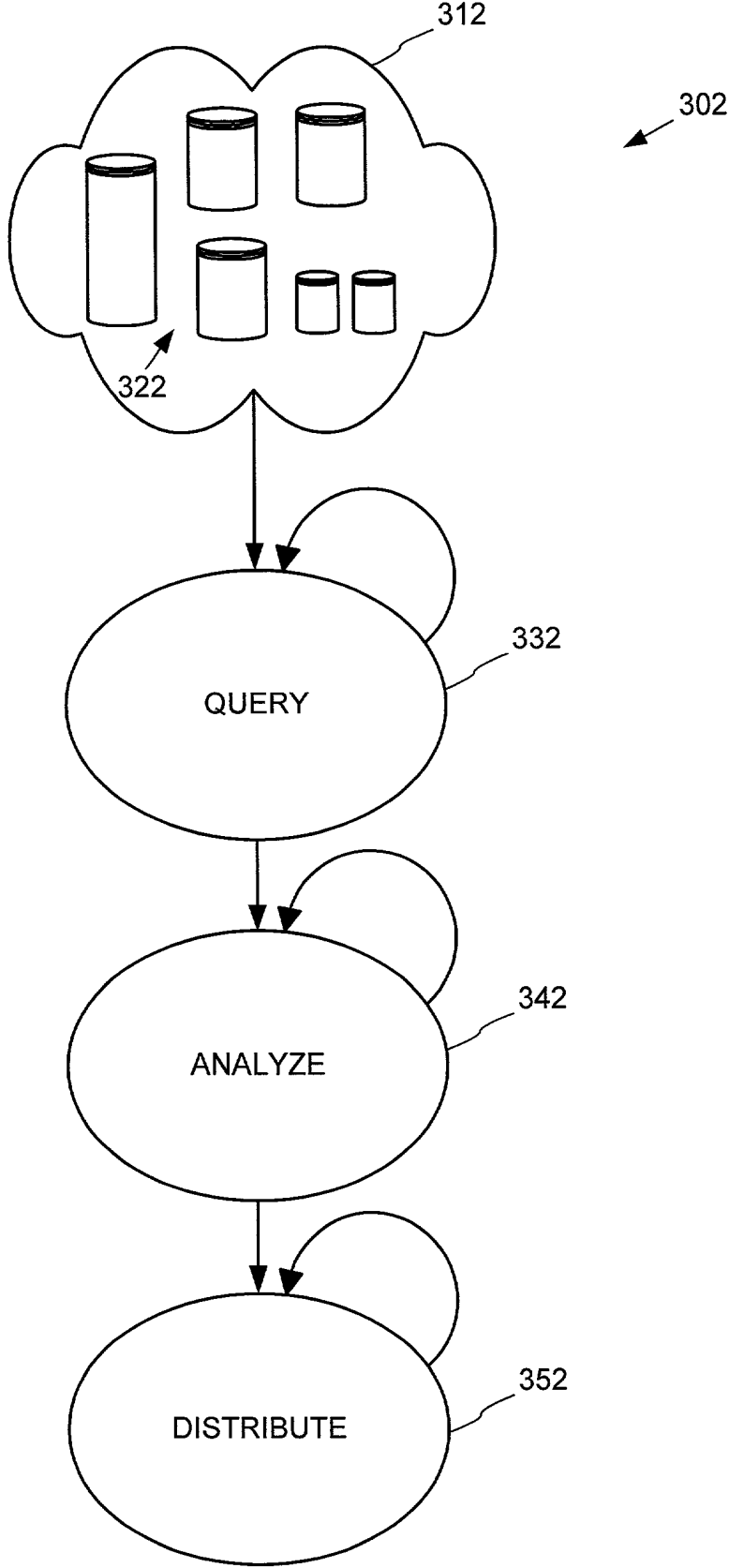


FIG. 4

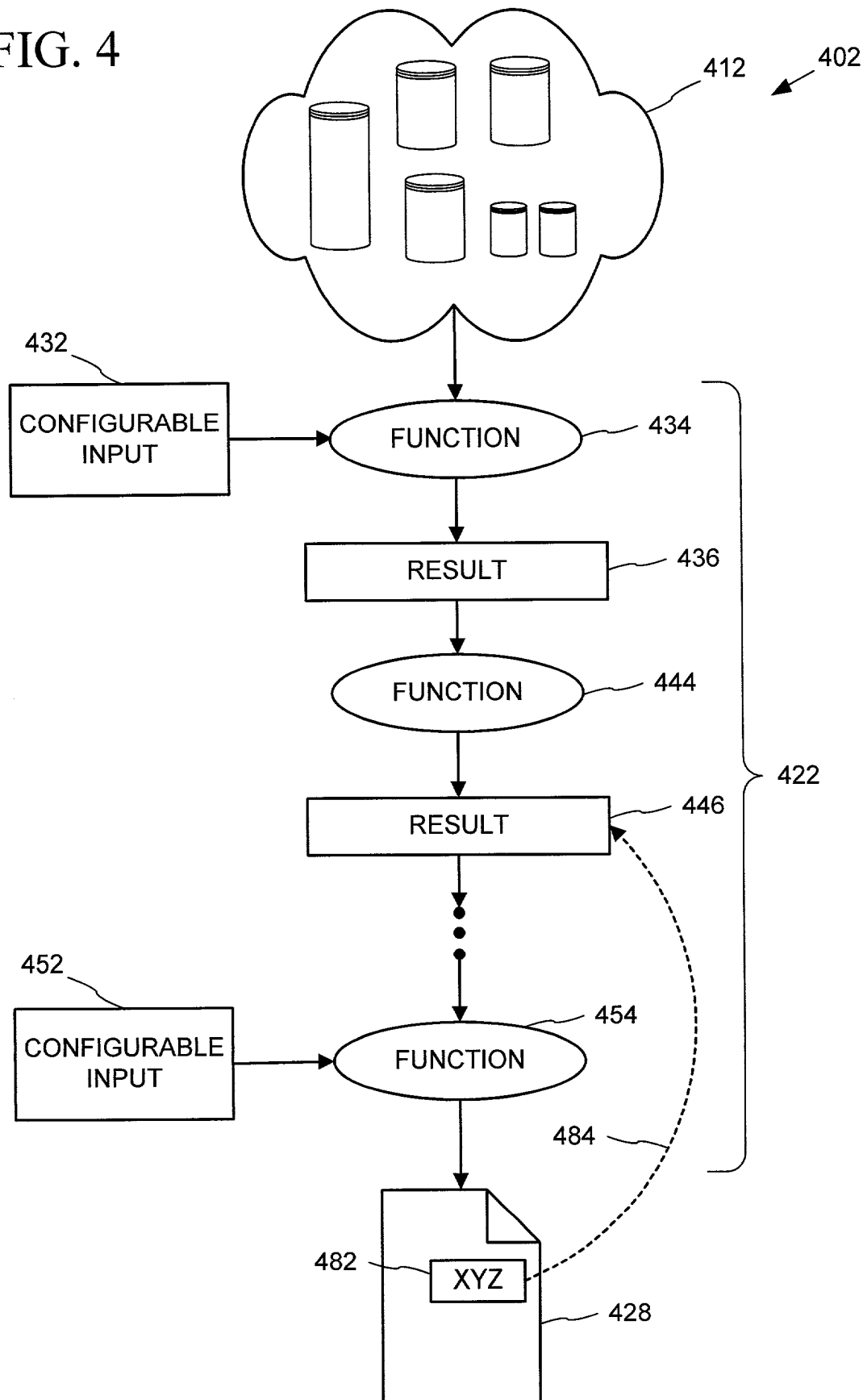


FIG. 5

502

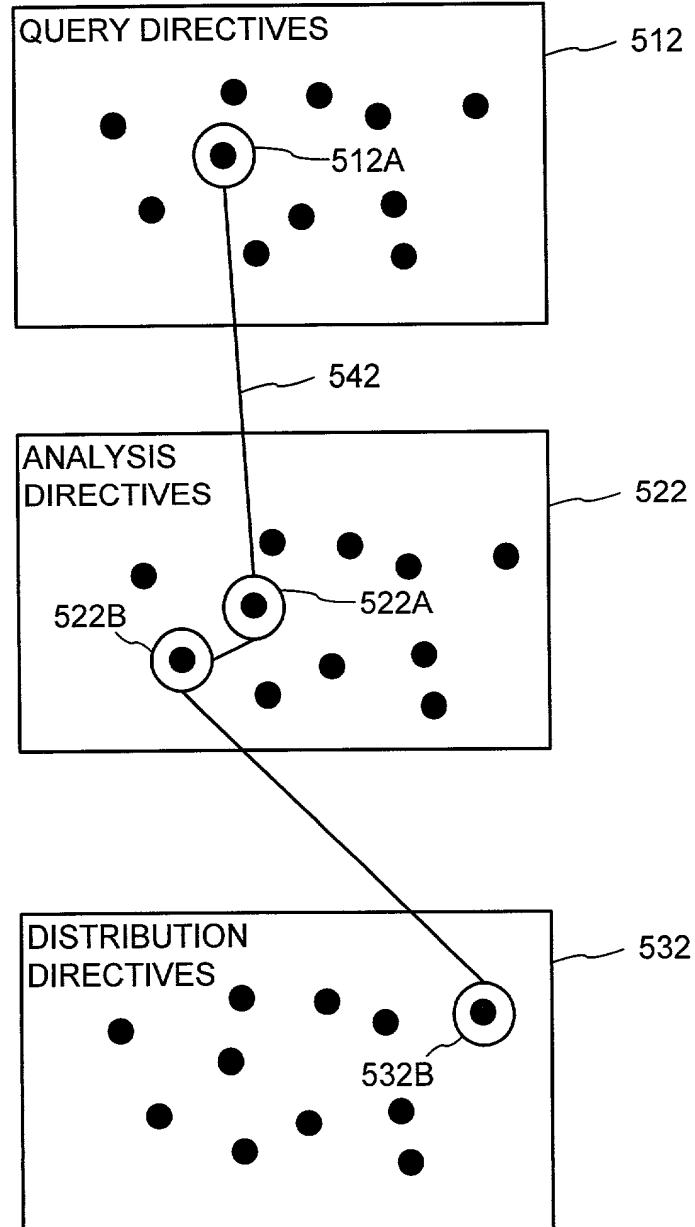


FIG. 6

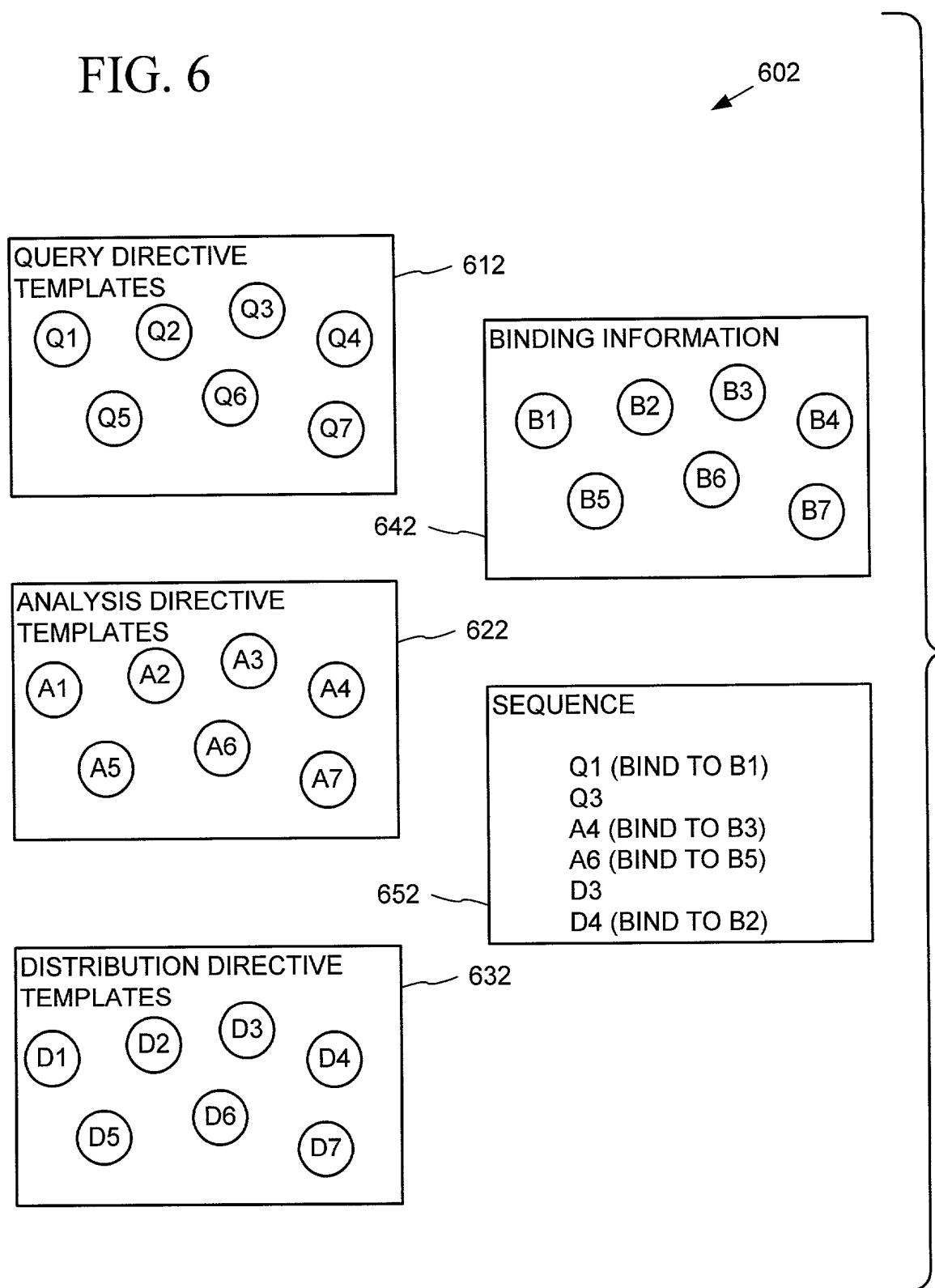


FIG. 7

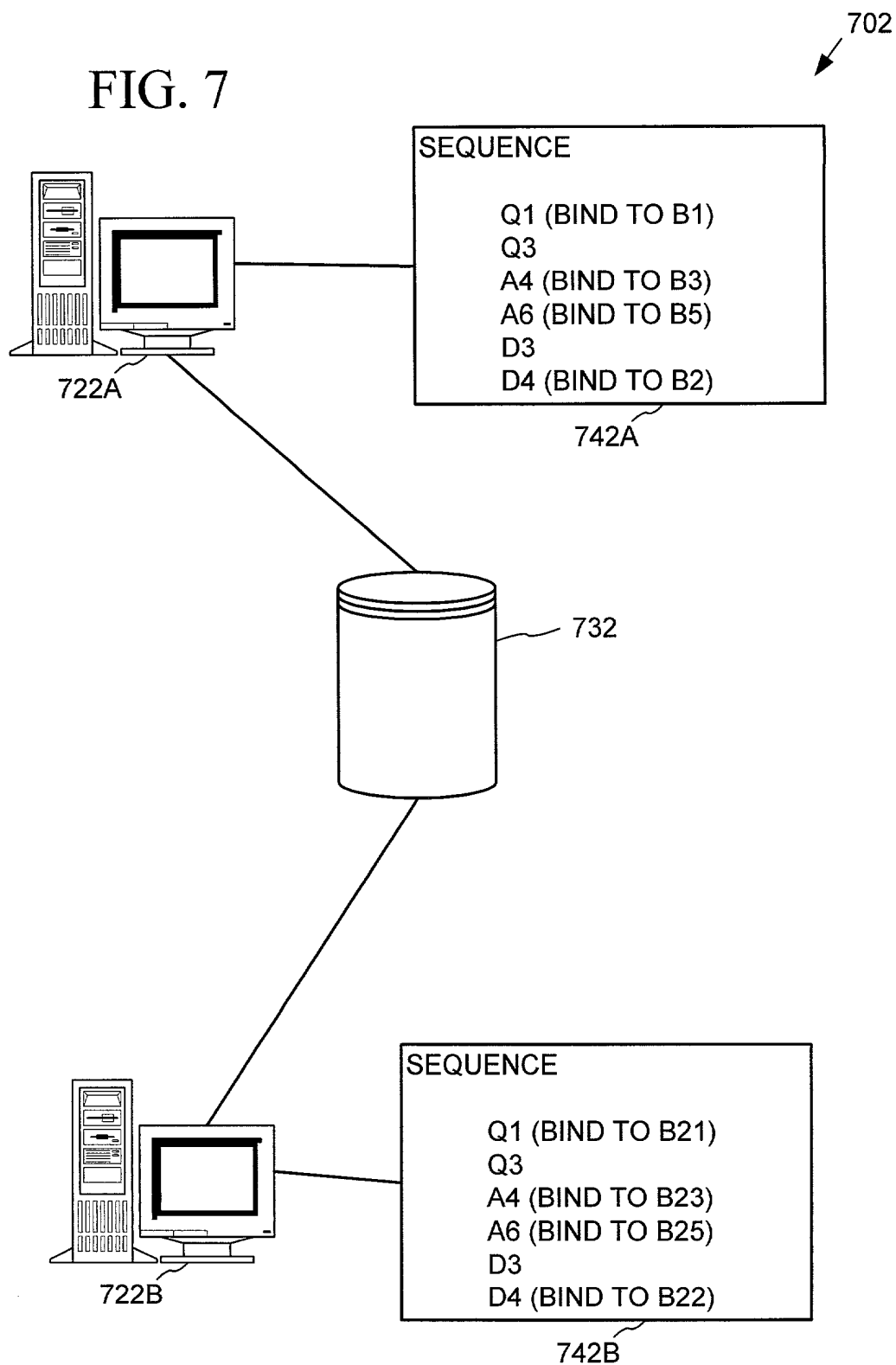


FIG. 8

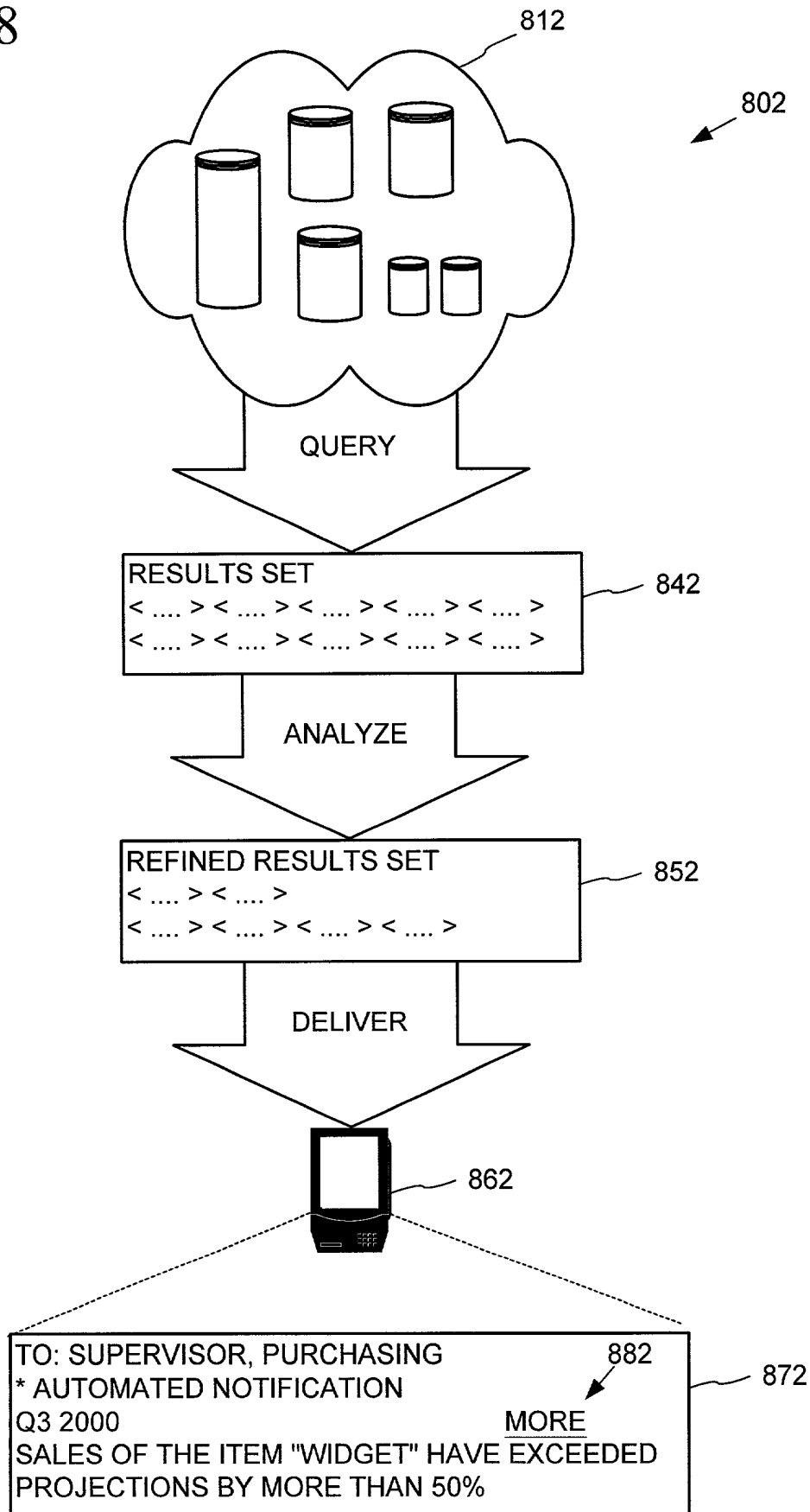


FIG. 9

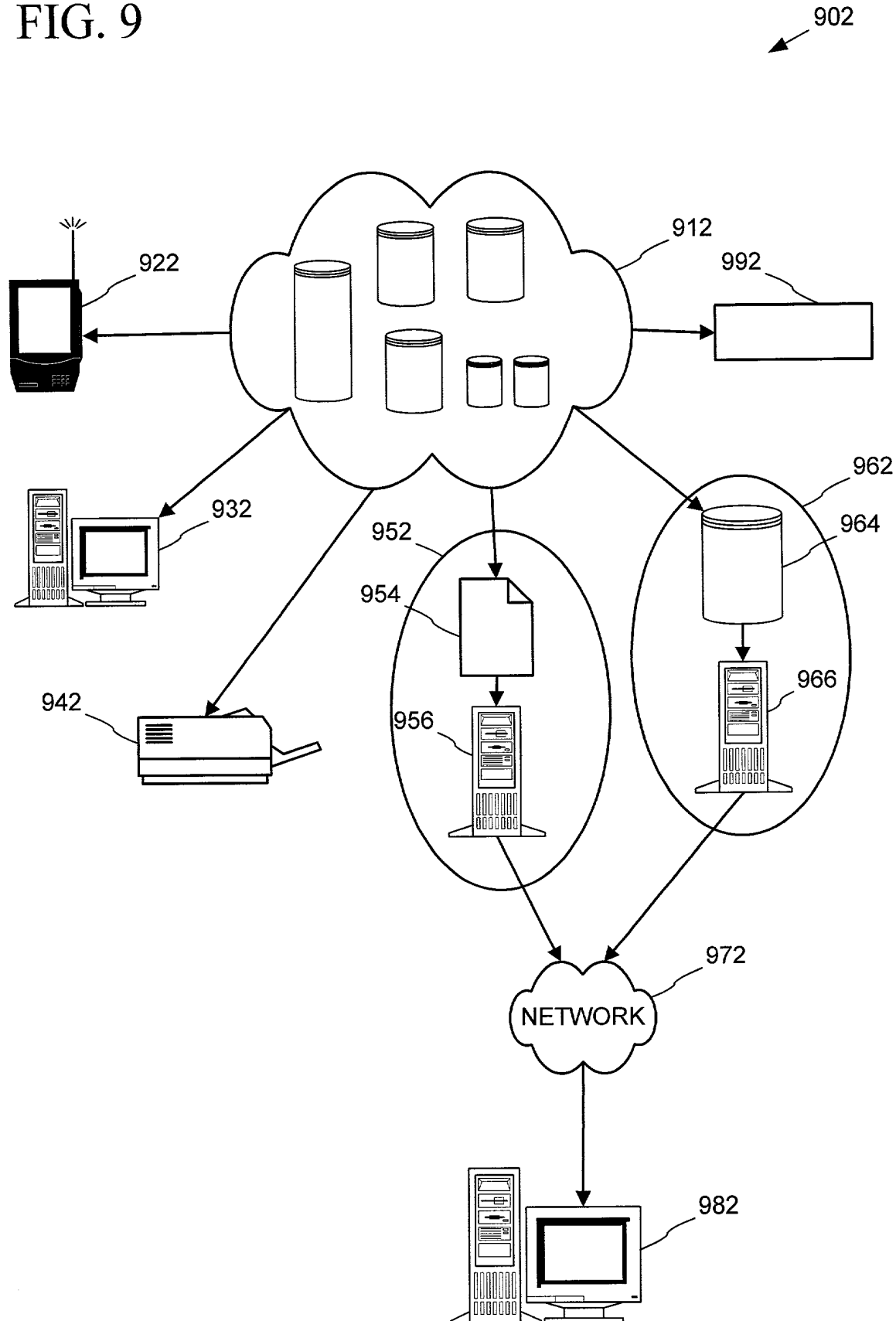


FIG. 10

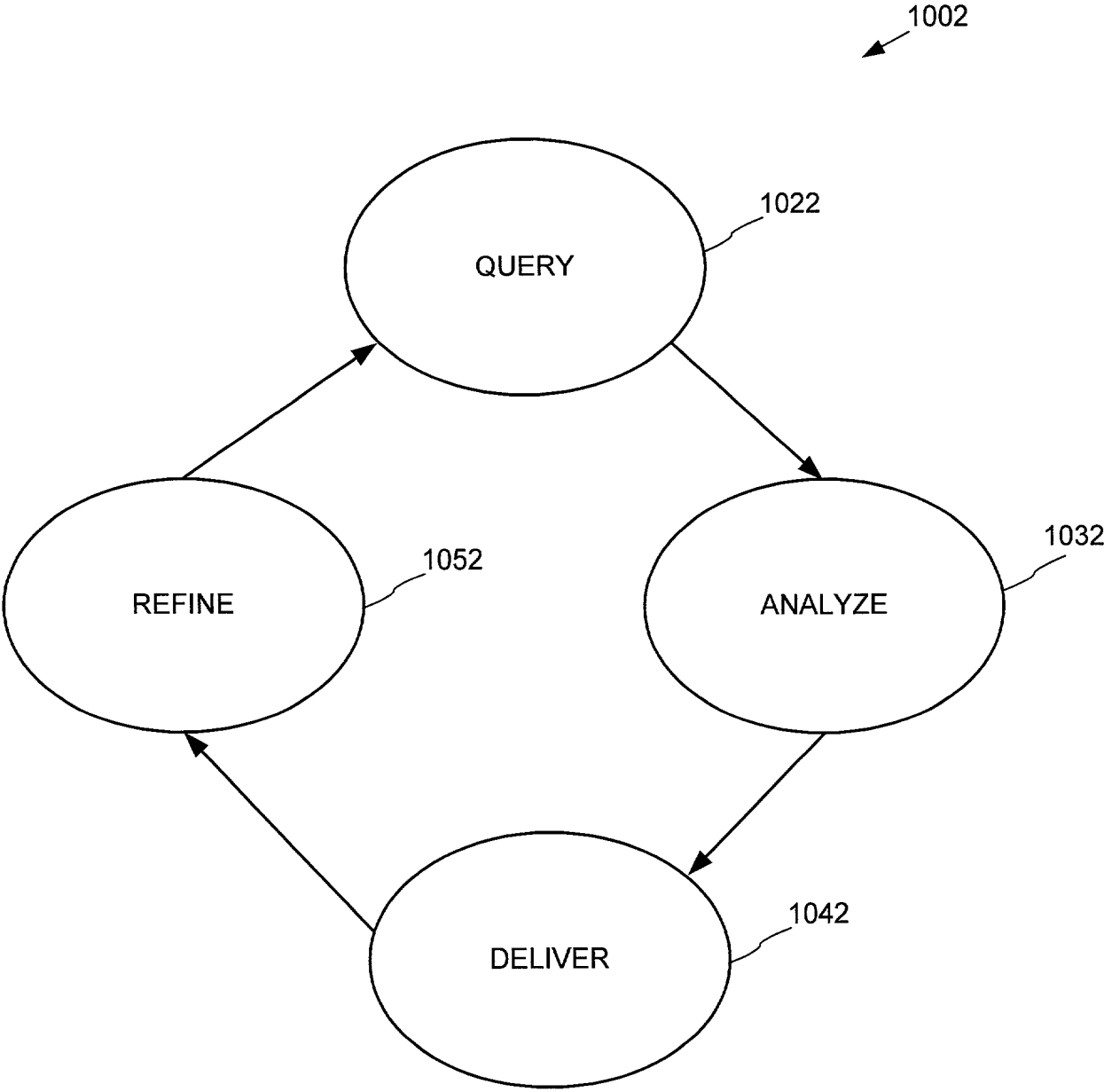


FIG. 11

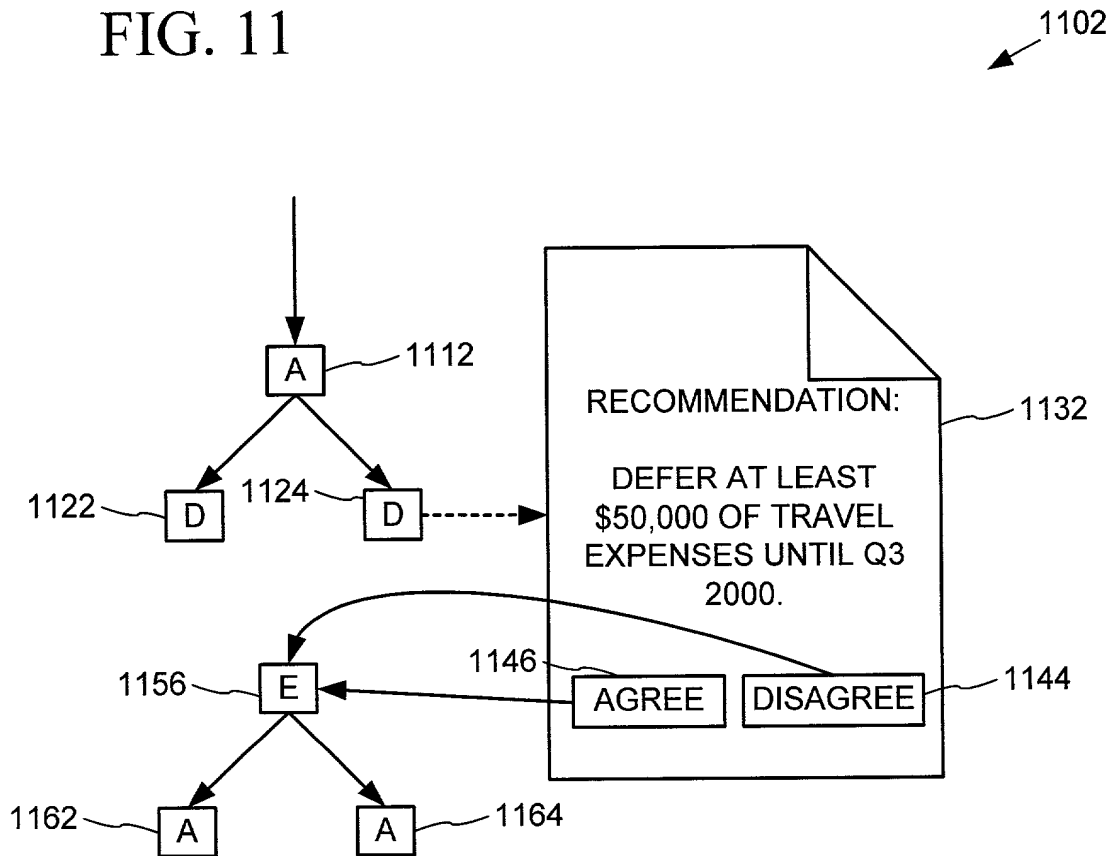


FIG. 12A

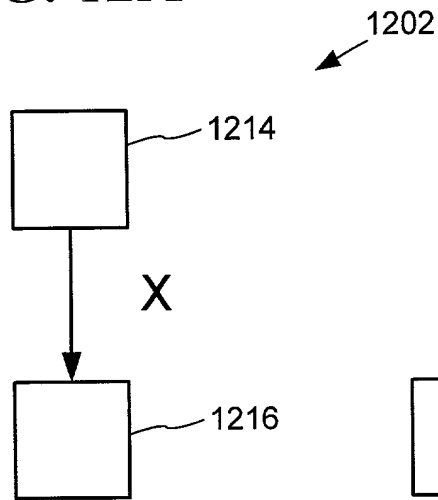


FIG. 12B

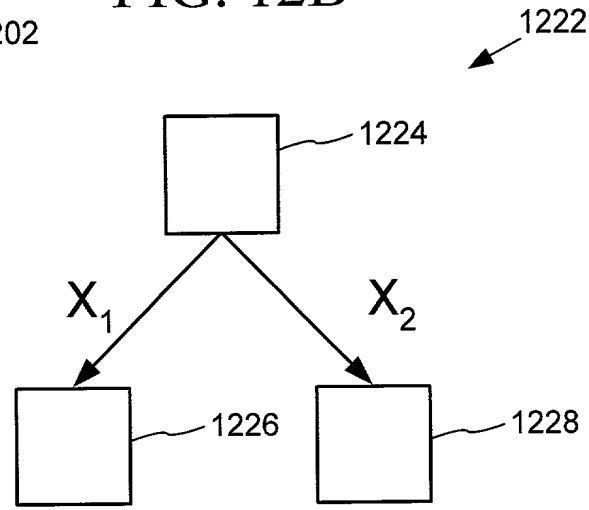


FIG. 12C

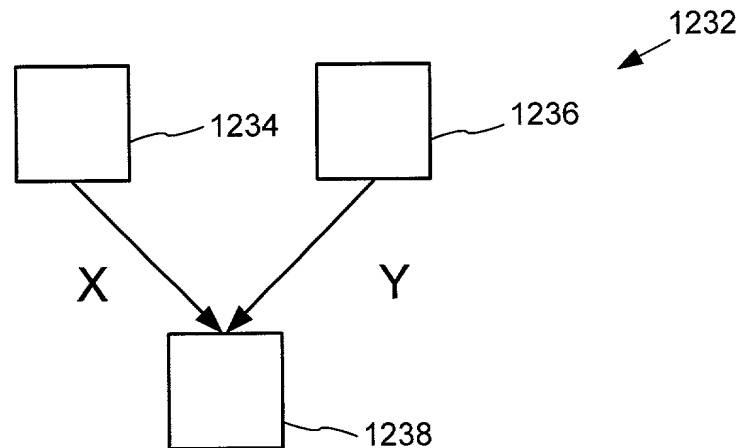


FIG. 12D

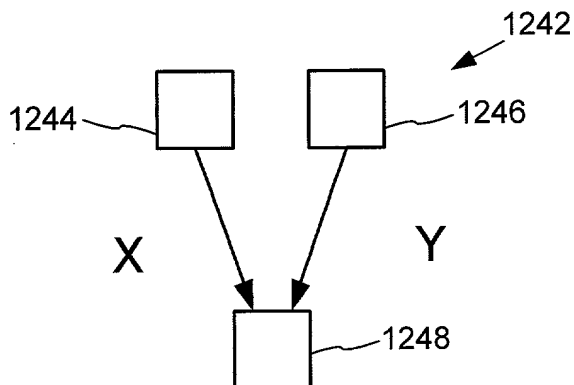


FIG. 12E

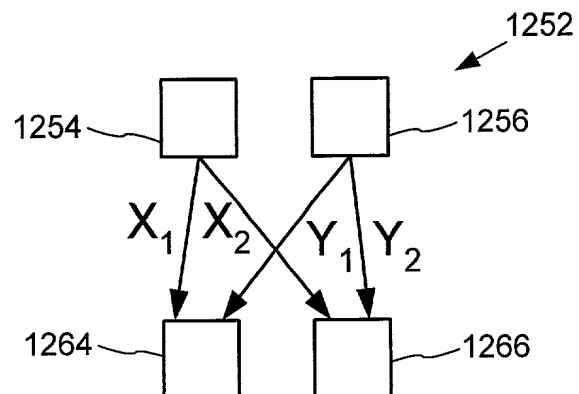


FIG. 13

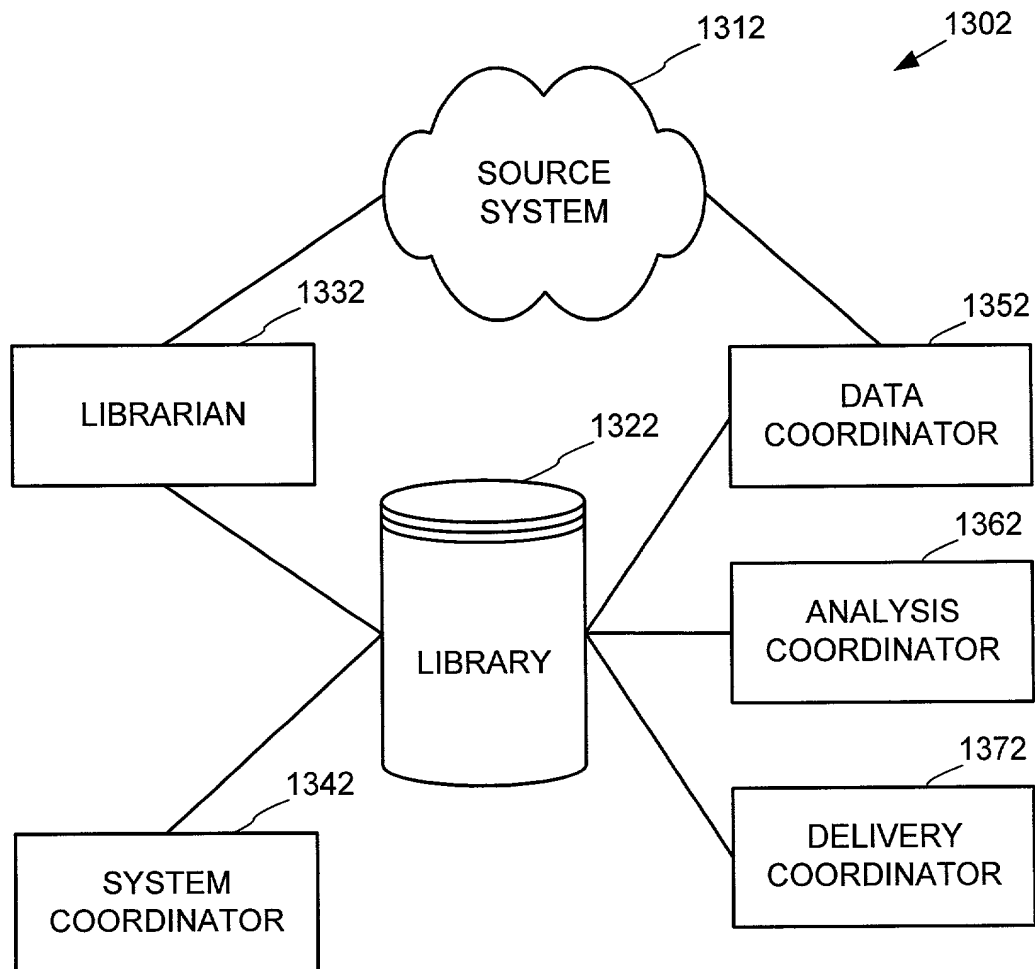


FIG. 14A

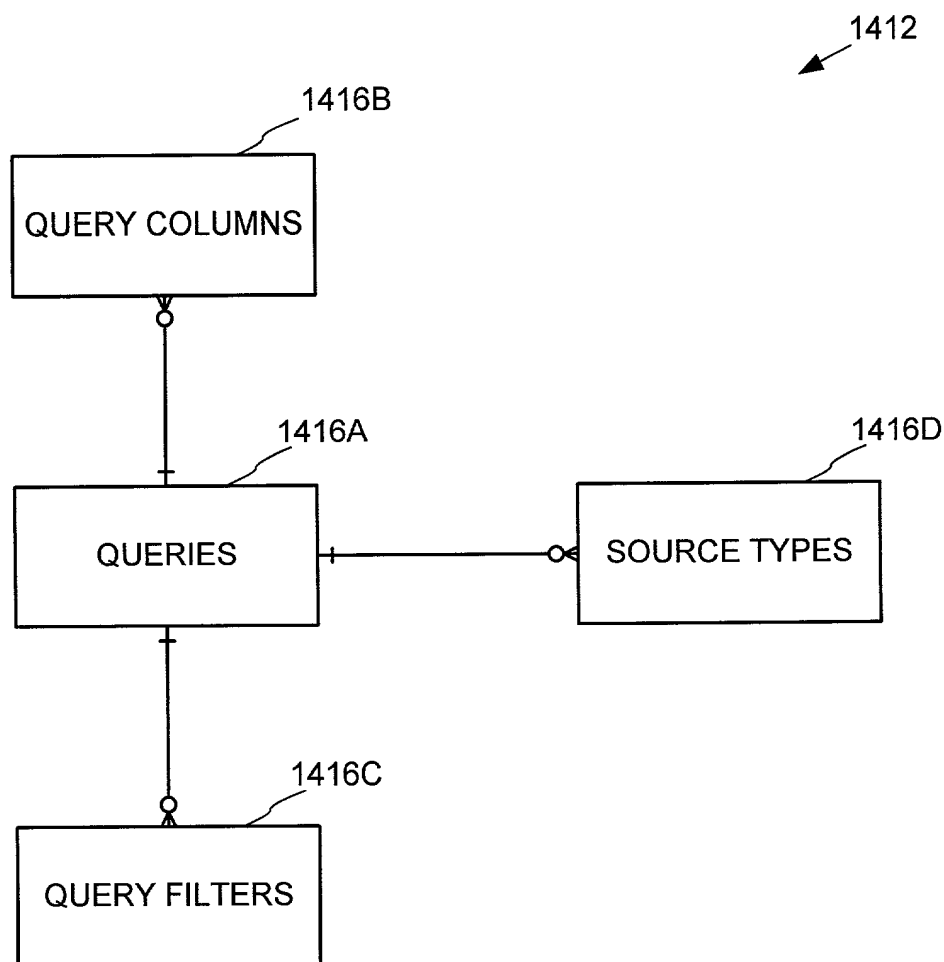


FIG. 14B

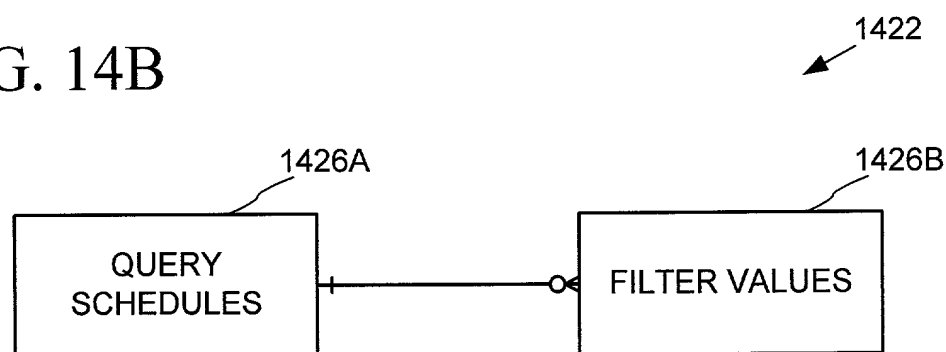


FIG. 14C

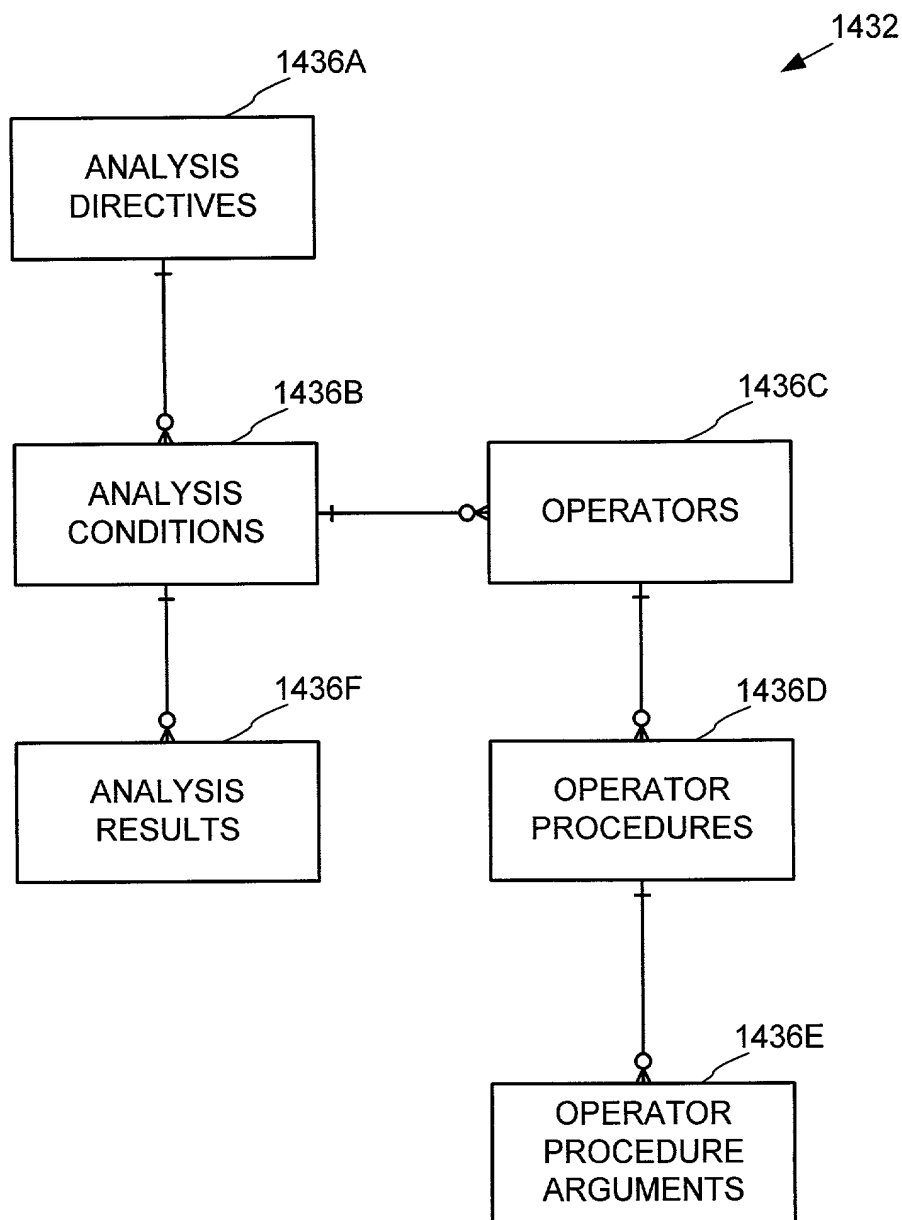


FIG. 14D

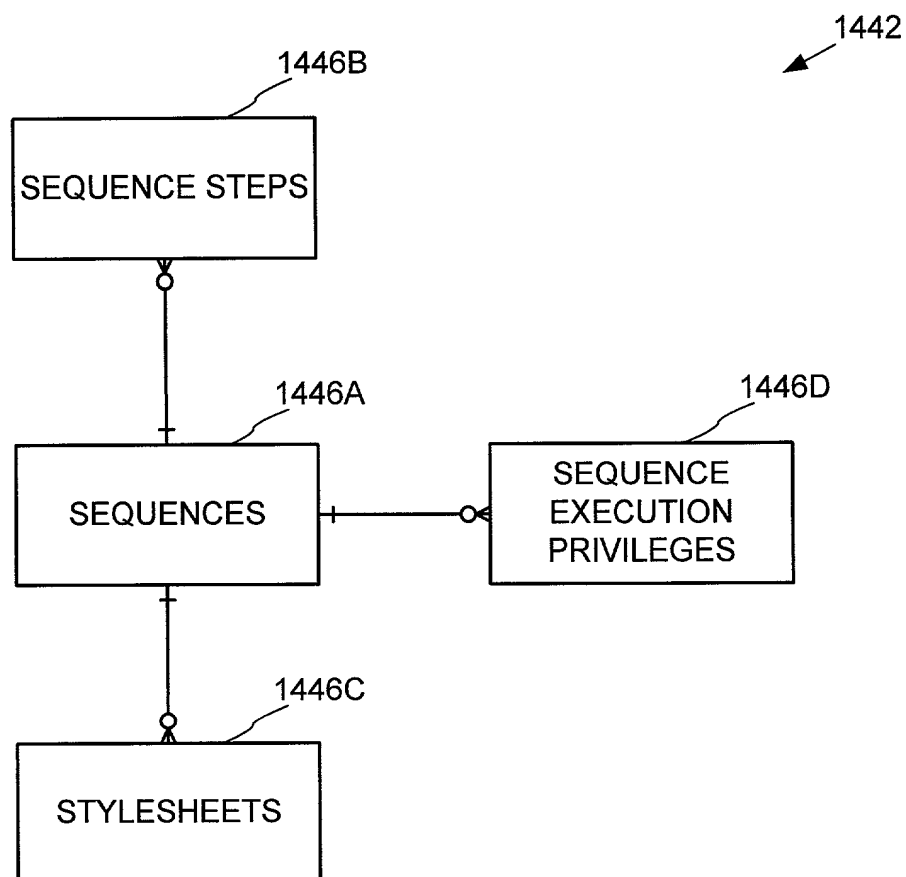


FIG. 14E

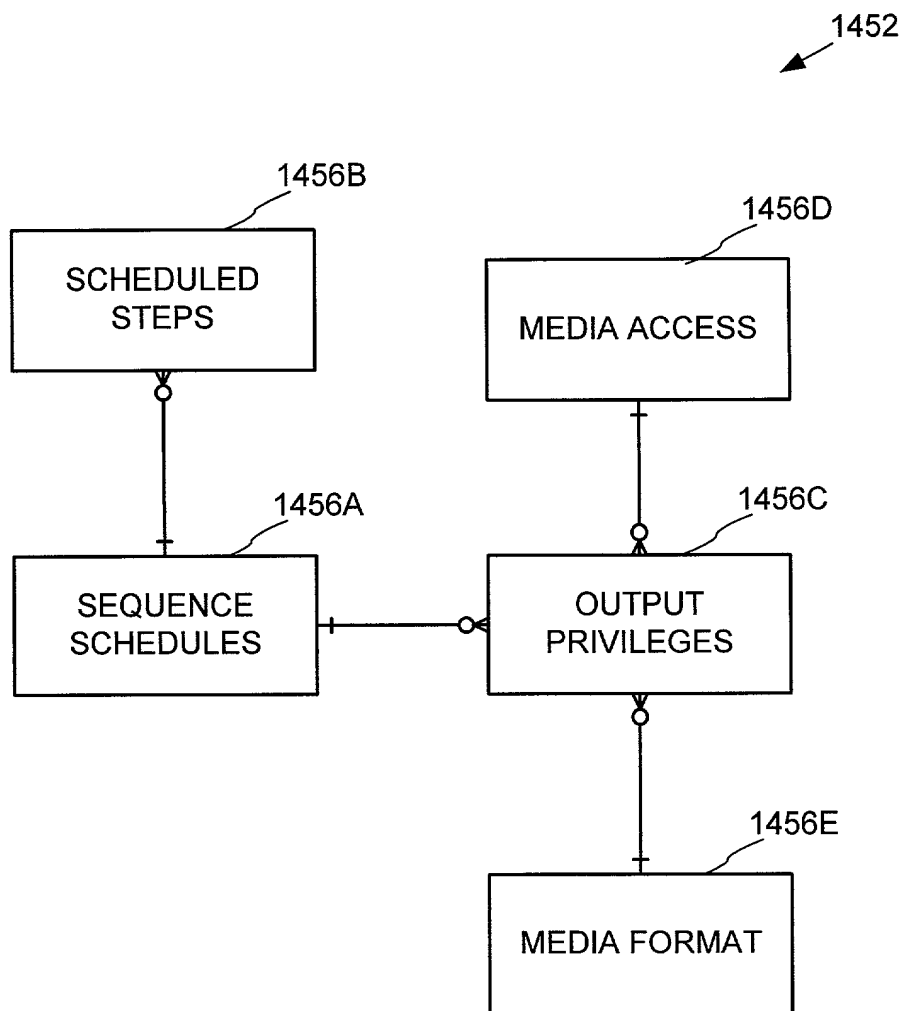


FIG. 14F

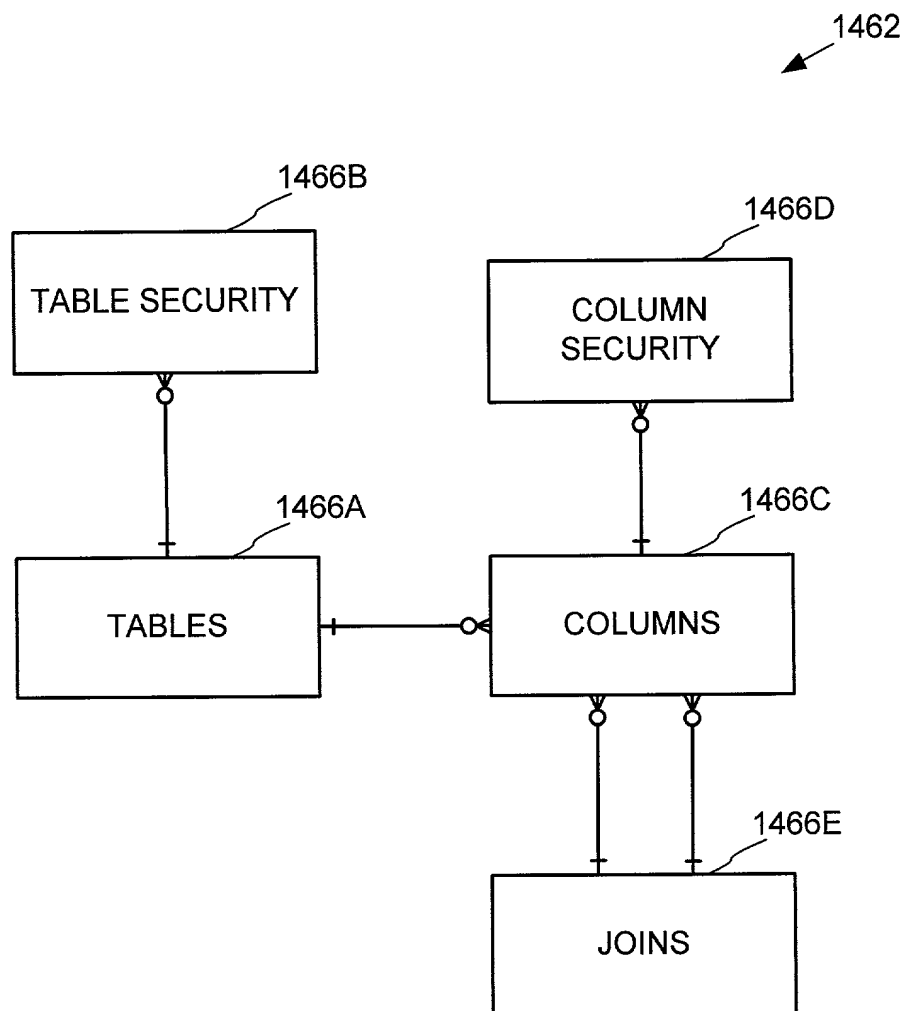


FIG. 14G

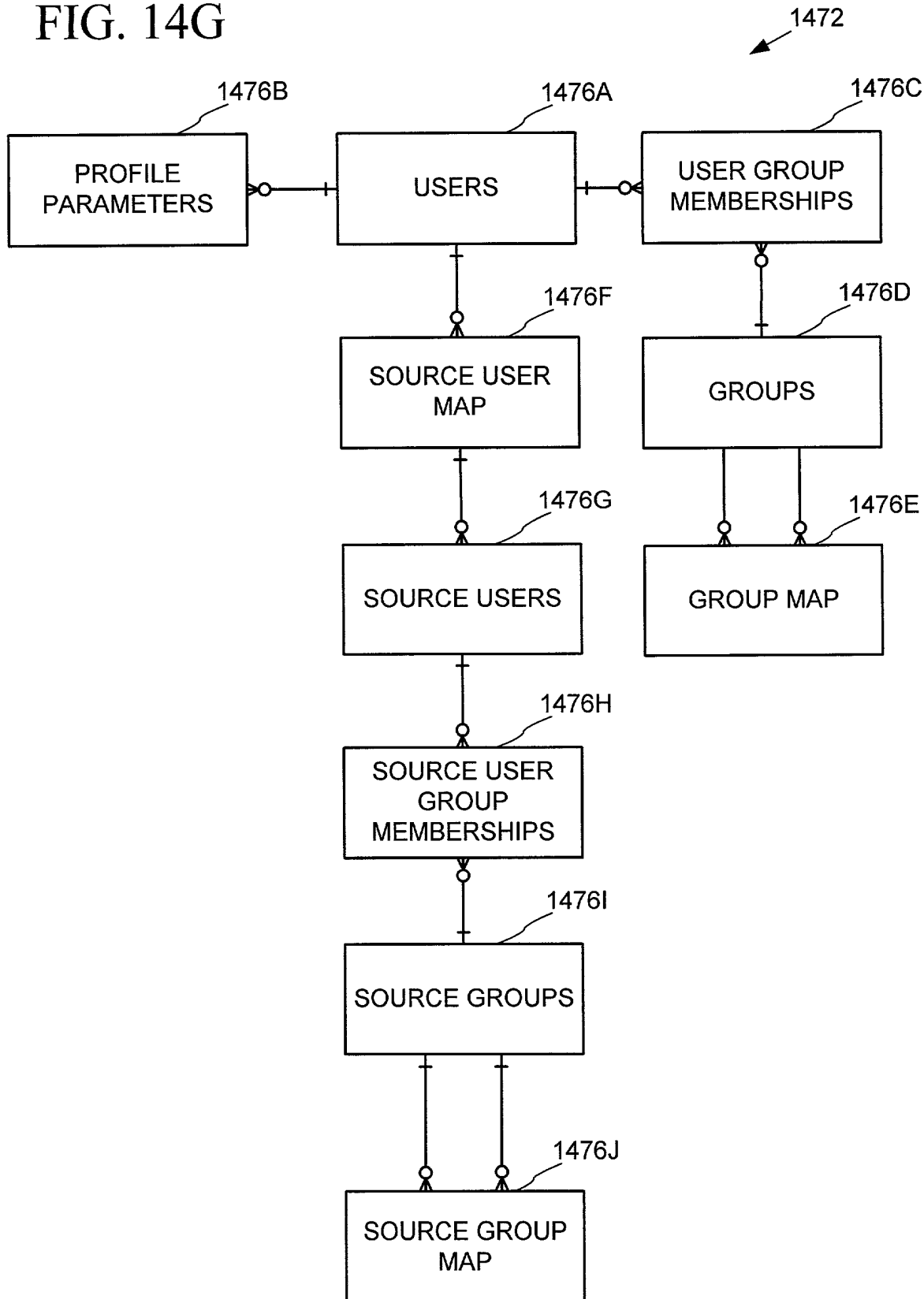


FIG. 14H

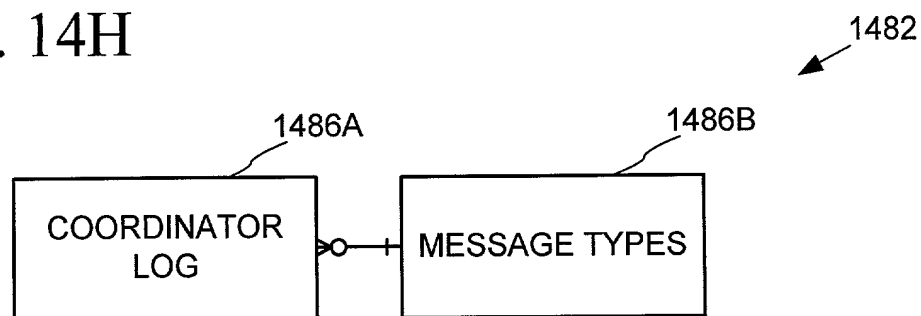


FIG. 15A

1502

| QUERY DIRECTIVES | | | | | | |
|------------------|----------------|------------|------|-------------|--------|--|
| NAME | DESC | SOURCE | USER | STATUS | OPTION | |
| NEW | NEW | SYSTEM A ▼ | NB | AVAILABLE ▼ | ADD | |
| CC1 | COST CENTER | SYSTEM A | EH | AVAILABLE ▼ | MOD | |
| AR-PTD | PERIOD TO DATE | SYSTEM B | LS | AVAILABLE ▼ | MOD | |
| REV | PTD REVENUE | SYSTEM B | LS | AVAILABLE ▼ | MOD | |
| FIN | FINANCIALS | SYSTEM B | LS | AVAILABLE ▼ | MOD | |
| SALES | SALES BY DEPT | SYSTEM B | LS | AVAILABLE ▼ | MOD | |

FIG. 15B

1504

| QUERY TABLE & COLUMNS | | | | |
|--------------------------|--------|-----|----|-------------------|
| QUERY:NEW QUERY | | | | |
| TABLE | COLUMN | GB? | ST | XML TAG ROR? SORT |
| <div>SELECT COLUMN</div> | | | | |
| ACCOUNTING_DATE_D | ▼ | | | |
| AR_RCT_REV_RESN_D | ▲ | | | |
| AR_RECPT_STATUS_D | | | | |
| AR_REVENUE_F | | | | |
| AR_SCH_PMT_DTL_F | | | | |
| AR_SHIP_VIA_D | | | | |
| AR_SOLD_TO_CUST_D | | | | |
| ASSET_BOOK_D | | | | |
| ASSET_EMPLOYEE_D | | | | |
| ASSET_INVENTORY_F | | | | |
| ASSET_TYPE_D | | | | |
| AUTHORIZER_D | ▼ | | | |

FIG. 15C

QUERY:NEW QUERY

QUERY TABLE & COLUMNS

| TABLE | COLUMN | GB? | ST | XML TAG | ROR? | SORT |
|----------------------------------------------------------------------------|------------|--------------|-------------|---------|--------------|------|
| DEPARTMENT_D | DEPARTMENT | <div>Y</div> | <div></div> | | <div>N</div> | |
| <div>DEPARTMENT</div> <div>DEPARTMENT_DESC</div> <div>DEPARTMENT_KEY</div> | | | | | | |
| <div>ADD</div> | | | | | | |

1506

FIG. 15D

1508

| QUERY TABLE & COLUMNS | | | | | | |
|-----------------------|-----------------|-----|----|------------|------|------|
| QUERY:NEW QUERY | | | | | | |
| TABLE | COLUMN | GB? | ST | XML TAG | ROR? | SORT |
| DEPARTMENT_D | DEPARTMENT_DESC | Y | | DEPARTMENT | N | 1 |

ADD COLUMN

DONE

FIG. 15E

| QUERY TABLE & COLUMNS | | | | | | | |
|---------------------------------------|------------------|-----------------|-----|-----|--------------|------|------|
| QUERY:NEW QUERY | TABLE | COLUMN | GB? | ST | XML TAG | ROR? | SORT |
| | DEPARTMENT_D | DEPARTMENT_DESC | Y | | DEPARTMENT | N | 1 |
| | INC_STMT_LINES_D | LINE_NAME | Y | | LINE_NAME | N | |
| | INCOME_STMT_A | PTD_ACTUAL | N | SUM | PTD_ACTUAL | N | |
| | INCOME_STMT_A | PTD_BUDGET | N | SUM | PTD_BUDGET | N | |
| | INCOME_STMT_A | PTD_VARIANCE | N | SUM | PTD_VARIANCE | N | |
| <div>ADD COLUMN</div> <div>DONE</div> | | | | | | | |

1510

FIG. 15F

1512

| QUERY:NEW QUERY | | | | | QUERY FILTERS | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------|------|-----------|---------------|-----------|--|
| TABLE | COLUMN | FILTER OPERATOR | ROR? | REF TABLE | REF COLUMN | REF TABLE | |
| BUDGET_D | BUDGET | IN | NO | | | REF TABLE | |
| <div> <div>IN</div> <div> <div>=</div> <div><</div> <div>></div> <div>=</div> <div><</div> <div>></div> <div>=</div> <div>IN</div> </div> </div> | | | | | | | |
| <div>ADD</div> | | | | | | | |

FIG. 15G

1514

| QUERY:NEW QUERY | | | | | QUERY FILTERS | | |
|-----------------------------------------|------------|-----------------|------|--------------|----------------|--|--|
| TABLE | COLUMN | FILTER OPERATOR | ROR? | REF TABLE | REF COLUMN | | |
| BUDGET_D | BUDGET | IN | N | | | | |
| PERIOD_D | PERIOD | = | N | | | | |
| DEPARTMENT_D | DEPARTMENT | = | N | DEPARTMENT_D | DEPARTMENT_KEY | | |
| <div>ADD FILTER</div> <div>FINISH</div> | | | | | | | |

FIG. 15H

1516

| ANALYSIS SUBSEQUENCE | | | |
|---------------------------------------------------------------------------|---------------------------------|-----------------------------------|------------------------------------|
| YOU ARE TYING THIS ANALYSIS SUBSEQUENCE TO THE QUERY DIRECTIVE: NEW QUERY | | | |
| ANALYSIS SUBS NAME | USER NAME | RESULTS TYPE | LAST RUN DATE OPTIONS |
| <input type="text" value="INCOME STMT ANALYSIS"/> | <input type="text" value="NB"/> | <input type="text" value="SHOW"/> | <input type="button" value="ADD"/> |

FIG. 15I

NAME : INCOME STATMT ANALYSIS

| COND'N TYPE | CON'DN SEQ. | XML TAG NAME | XML TDT | XML TDF | OPERATOR | TV | OPT. |
|----------------|----------------|--------------|------------|------------|----------|----|------|
| AND | | DEPARTMENT ▼ | | | NOOP ▼ | | |

ADD

ADDITIONS COMPLETED

1518

FIG. 15J

1520

NAME : INCOME STATMT ANALYSIS

COND'N CON'DN XML TAG NAME XML XML TV OPT.
TYPE SEQ. TDT TDF

AND DEPARTMENT ▼ NOOP ADD

DEPARTMENT
LINE_NAME
PTD_ACTUAL
PTD_BUDGET
PTD_VARIANCE

ONS COMPLETED

FIG. 15K

1522

NAME : INCOME STATMT ANALYSIS

COND'N CON'DN XML TAG NAME XML XML TV OPT.
TYPE SEQ. TDT TDF

AND 1 PTD_ACTUAL NOOP

ADD

ADDITIONS COMPLETED

TOP PCT
BOTTOM
BOTTOM PCT
> AVG
< AVG
< AVG PCT
> AVG PCT
AVG WITHIN
AVG OUT
AVG WITHING PCT
AVG OUT PCT

FIG. 15L

1524

| ANALYSIS SUBSEQUENCE | | | | | | | | | |
|-------------------------------|---------------|--------------|------------|------------|----------|----|--------|-----|-----|
| NAME : INCOME STATMT ANALYSIS | | | | | | | | | |
| COND'N TYPE | CON'DN SEQ | XML TAG NAME | XML TDT | XML TDF | OPERATOR | TV | OPT | | |
| AND | | DEPARTMENT | ▼ | | NOOP | ▼ | | ADD | |
| AND | 1 | PTD_ACTUAL | ▼ | | <> | ▼ | 0 | MOD | DEL |
| AND | 2 | PTD_VARIANCE | ▼ | | > | ▼ | 300000 | MOD | DEL |
| AND | 3 | PTD_VARIANCE | ▼ | | TOP PCT | ▼ | 10 | MOD | DEL |
| ADDITIONS COMPLETED | | | | | | | | | |

FIG. 15M

| SEQUENCES | | | | |
|-------------------------------|------------------------|------------------------|---------|----------|
| ADD, EDIT OR DELETE SEQUENCES | | | | |
| ID | NAME | DESCRIPTION | STATUS | USER OPT |
| | INCOME STAT'T ANALYSIS | INCOME STAT'T ANALYSIS | AVAIL ▼ | NB ADD |
| 24 | FINANCIAL STATEMENT | FINANCIAL STATEMENT | AVAIL ▼ | LS MOD |
| 25 | FSV | FSV | AVAIL ▼ | NB MOD |
| 26 | COST CENTER SCORING 1 | COST CENTER SCORING | DISAB ▼ | LS MOD |
| 27 | COST CENTER SCORING 2 | CSS PTD-VARIANCE | AVAIL ▼ | LS MOD |

FIG. 15N

1530

| ADD OR EDIT SEQUENCE STEP INFORMATION | | | | | | | | | | | | | | | |
|------------------------------------------------------------------------|------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---|------------------------------------------------------------------------|---|--------------|--|--------------------|--|---------------|--|-------------------------|---|
| SEQUENCE NAME: INCOME STATEMENT ANALYSIS | | | | | | | | | | | | | | | |
| ID | STEP | DIRECTIVE TYPE | DIRECTIVE ID LUB LUD | | | | | | | | | | | | |
| 28 | 1 | QUERY DIRECTIVE | <table><thead><tr><th>QUERY FOR STEP</th><th>▼</th></tr></thead><tbody><tr><td>AR - PTD REVENUE BY DEPARTMENT VARIANCE AND VARIANCE PERCENT NEW QUERY</td><td>▲</td></tr><tr><td>NEIL'S QUERY</td><td></td></tr><tr><td>NEIL'S OTHER QUERY</td><td></td></tr><tr><td>LARRY'S QUERY</td><td></td></tr><tr><td>YET ANOTHER LARRY QUERY</td><td>▼</td></tr></tbody></table> | QUERY FOR STEP | ▼ | AR - PTD REVENUE BY DEPARTMENT VARIANCE AND VARIANCE PERCENT NEW QUERY | ▲ | NEIL'S QUERY | | NEIL'S OTHER QUERY | | LARRY'S QUERY | | YET ANOTHER LARRY QUERY | ▼ |
| QUERY FOR STEP | ▼ | | | | | | | | | | | | | | |
| AR - PTD REVENUE BY DEPARTMENT VARIANCE AND VARIANCE PERCENT NEW QUERY | ▲ | | | | | | | | | | | | | | |
| NEIL'S QUERY | | | | | | | | | | | | | | | |
| NEIL'S OTHER QUERY | | | | | | | | | | | | | | | |
| LARRY'S QUERY | | | | | | | | | | | | | | | |
| YET ANOTHER LARRY QUERY | ▼ | | | | | | | | | | | | | | |

ADD DEFINE

FIG. 150

1532

ADD OR EDIT SEQUENCE STEP INFORMATION

SEQUENCE NAME: INCOME STATEMENT ANALYSIS

| ID | STEP | DIRECTIVE TYPE | DIRECTIVE ID | LUB | LUD |
|----|------|--------------------------------------------------------------------------------------------------------------------------------|----------------------|----------|----------------------------------|
| 28 | 1 | QUERY DIRECTIVE | <div>NEW QUERY</div> | 12/15/00 | <div>MOD</div> <div>DEFINE</div> |
| 28 | 2 | <div>ANALYSIS DIRECTIVE</div> <div>QUERY DIRECTIVE ANALYSIS DIRECTIVE EVENT DIRECTIVE DISTRIBUTION DIRECTIVE</div> | <div>DIRECTIVE</div> | | |

FIG. 15P

| ADD OR EDIT SEQUENCE STEP INFORMATION | | | | |
|------------------------------------------|----|--------------------------|------------------------|-------------|
| SEQUENCE NAME: INCOME STATEMENT ANALYSIS | | | | |
| ID | ST | DIRECTIVE TYPE | DIRECTIVE ID | LUB LUD |
| 28 | 1 | QUERY DIR | NEW QUERY ▼ | 12/15/00 |
| | | | | MOD DEFINE |
| 28 | 2 | ANALYSIS DIR | INCOME STMT ANALYSIS ▼ | NB 12/15/00 |
| | | | | MOD DEFINE |
| 28 | 3 | DISTRIBUTION DIRECTIVE ▼ | | |
| | | DIRECTIVE | | |

1534

FIG. 15Q

| | |
|------------------------------------------|--------|
| SEQUENCE NAME: INCOME STATEMENT ANALYSIS | |
| FORMAT | |
| HTML | CREATE |
| EXCEL | |
| HTML | |
| WAP | |

1536

FIG. 15R

| | | | | | |
|----------------------------|--------------------------------------|-------------|----------------------|-------------|-----------------|
| <u>HOME</u> | SCHEDULE SEQUENCES | | | | |
| <u>INSTRUCTIONS</u> | | | | | |
| <u>SEQUENCES AVAILABLE</u> | SEQUENCE NAME | USER | SCHEDULE DESC | FREQ | PRIORITY |
| <u>ADMIN</u> | INCOME STAT'T ANALYSIS ▼ | LS | ISA FOR DEC '00 | IMMEDIATE ▼ | ADD |
| <u>SYS SETTINGS</u> | SELECT SEQUENCE TO VIEW | | | | |
| <u>USERS</u> | | | | | |
| <u>LOGS</u> | | | | | |
| <u>APPL SETTINGS</u> | COST CENTER SCORING - PTD VARIANCE ▼ | | | | |
| <u>MEDIA SETT'S</u> | VIEW | | | | |

1538

TABLE 15-1000

FIG. 15S

| SCHEDULE SEQUENCES | | | | |
|--------------------------------------|------|-----------------|-------------|----------|
| SEQUENCE NAME | USER | SCHEDULE DESC | FREQ | PRIORITY |
| INCOME STAT'T ANALYSIS ▼ | LS | ISA FOR DEC '00 | IMMEDIATE ▼ | ADD |
| SELECT SEQUENCE TO VIEW | | | | |
| IMMEDIATE | | | | |
| ONCE | | | | |
| EXTRACT | | | | |
| DAILY | | | | |
| WEEKLY | | | | |
| MONTHLY | | | | |
| COST CENTER SCORING - PTD VARIANCE ▼ | | | | |

1540

FIG. 15T

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------|---------------------------------|
| ADD SEQUENCE TO SCHEDULE | | | |
| SELECT THE DAYS YOU WISH THE SEQUENCE TO RUN | | | |
| <input type="checkbox"/> SUNDAY <input type="checkbox"/> MONDAY <input type="checkbox"/> TUESDAY <input type="checkbox"/> WED <input type="checkbox"/> THURS <input type="checkbox"/> FRIDAY <input type="checkbox"/> SATURDAY | | | |
| START AT | | | |
| <input type="text" value="8"/> | <input type="text" value="▼"/> | <input type="text" value="30"/> | <input type="text" value="PM"/> |
| NEXT START DATE | | | |
| <input type="text" value="2000"/> | <input type="text" value="▼"/> | <input type="text" value="DEC"/> | <input type="text" value="15"/> |
| <input type="button" value="SUBMIT"/> | | | |

1542

FIG. 15U

| | | | |
|-------------------------------------|----|----------------|--|
| SELECT SOURCE INFORMATION | | SCHEDULE ENTRY | |
| SEQUENCE: INCOME STATEMENT ANALYSIS | | | |
| STEP: 1 | | | |
| QUERY: NEW QUERY | | | |
| SOURCE NAME | DV | ▼ | |
| | DV | PART | |
| <div>CONTINUE</div> | | | |

1544

FIG. 15U

FIG. 15V

| | | | |
|-------------------------------------|--|----------------|---|
| SELECT SOURCE INFORMATION | | SCHEDULE ENTRY | |
| SEQUENCE: INCOME STATEMENT ANALYSIS | | | |
| STEP: 1 | | | |
| QUERY: NEW QUERY | | | |
| SOURCE NAME | | PART | |
| SOURCE SET | | OAS | ▼ |
| CONTINUE | | | |

FIG. 15W

1548

FILTER VALUES FOR QUERY

SEQUENCE: INCOME STATEMENT ANALYSIS

SCHEDULE: INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

SEQUENCE STEP: 1

NEW QUERY

| TABLE NAME | COL NAME | OP | FILTER VALUE |
|------------|----------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BUDGET_D | BUDGET | IN | <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;">ACTUAL</div> <div style="margin: 0 5px;">▼</div> <div style="border: 1px solid black; padding: 2px 5px;">MOD</div> </div> |
| | | | <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;">CORPORATE 1997</div> <div style="margin: 0 5px;">▼</div> <div style="border: 1px solid black; padding: 2px 5px;">MOD</div> <div style="margin-left: 5px; border: 1px solid black; padding: 2px 5px;">DEL</div> </div> |
| | | | <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;"></div> <div style="margin: 0 5px;">▼</div> <div style="border: 1px solid black; padding: 2px 5px;">ADD</div> </div> |
| PERIOD_D | PERIOD | = | <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px 5px;">DEC-2000</div> <div style="margin: 0 5px;">▼</div> <div style="border: 1px solid black; padding: 2px 5px;">MOD</div> </div> |

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD,
MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

FIG. 15X

1550

GROUPS

SEQUENCE OUTPUT PRIVILEGES

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

| USER | ACCESS | FORMAT | ST | CS | RESULT TAG | RESULT VALUE | OPT |
|-----------------------------------------------------------|--------------|--------|----|----|------------|--------------|-----|
| NEILB ▼ | EMAIL_DATA ▼ | HTML ▼ | ▼ | | | | ADD |
| NEILB LARRYS ERICH MARC SALES MARKET HQ | | | | | | | |

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD,
MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

FIG. 15Y

1552

GROUPS

SEQUENCE OUTPUT PRIVILEGES

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

| USER | ACCESS | FORMAT | ST | CS | RESULT TAG | RESULT VALUE | OPT |
|---------|-------------------------------------------------------------------------|--------|----|----|------------|--------------|-----|
| NEILB ▼ | EMAIL_DATA ▼ <div>EMAIL_DATA EMAIL_URL WEB DESK_ALERT</div> | HTML ▼ | ▼ | | | | ADD |

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD,
MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

FIG. 15Z

SEQUENCE OUTPUT PRIVILEGES
SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

GROUPS

| USER | ACCESS | FORMAT | ST | CSS RESULT TAG | RESULT VALUE | OPT |
|--------------------------------------------------------------------------|------------|--------|----|----------------|--------------|-----|
| NEILB | EMAIL_DATA | HTML | ▼ | 3 | | ADD |
| <div>1 HTML 2 WAP XML EXCEL PALM VII PALM MAIL</div> | | | | | | |

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD,
MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

1554

FIG. 15AA

1556

| SEQUENCE OUTPUT PRIVILEGES | | |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000 | | |
| CONDITION SUBSEQUENCE | RESULT TAG | RESULT VALUES |
| SUBSEQUENCE 2 ▼ | <div>SELECT DESIRED TAG ▼</div> <div>SELECT DESIRED TAG NO RESULT TAG NEEDED DEPARTMENT LINE_NAME PTD_ACTUAL PTD_BUDGET PTD_VARIANCE</div> | <div></div> |
| <div>FINISHED</div> | | |

FIG. 15BB

1558

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| SEQUENCE OUTPUT PRIVILEGES | |
| SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000 | |
| SELECT | |
| <div><div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div><div><VAL></div></div><div><div><input type="checkbox"/></div><div><input type="checkbox"/></div><div><input type="checkbox"/></div><div><input type="checkbox"/></div><div><input type="checkbox"/></div><div><input checked="" type="checkbox"/></div><div><input type="checkbox"/></div><div><input type="checkbox"/></div><div><input type="checkbox"/></div><div><input checked="" type="checkbox"/></div><div><input type="checkbox"/></div></div><div><div>MAINTENANCE<NAL></div><div>MANUFACTURING<NAL></div><div>MANUFACTURING PLANT 1<NAL></div><div>MANUFACTURING PLANT 2<NAL></div><div>MARKETING<NAL></div><div>NON-PRODUCT SALES<NAL></div><div>ORDER ENTRY<NAL></div><div>PARENT TOTAL<NAL></div><div>PAYROLL<NAL></div><div>PRODUCT SALES<NAL></div><div>/SPLIT VALUES></div></div></div> | <div><div>▲</div><div></div><div></div><div></div><div>▼</div></div> |
| FINISHED | |

FIG. 15CC

1560

| | | |
|------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SEQUENCE OUTPUT PRIVILEGES | | |
| SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000 | | |
| CONDITION SUBSEQUENCE | RESULT TAG | RESULT VALUES |
| SUBSEQUENCE 2 ▼ | DEPARTMENT ▼ | <div><?XML VERSION = "1.0"?> <SPLIT VALUES> <VAL>COMMERCIAL SALES</VAL> <VAL? COMMUNICATIONS RESOURCES</VAL> <VAL>EAST REGION SALES</VAL> <VAL>FINANCES</VAL> <VAL>GOVERNMENT SALES</VAL> <VAL>NON-PRODUCT SALES</VAL> <VAL>PRODUCT SALES</VAL> </SPLIT VALUES></div> |
| FINISHED | | |

FIG. 15DD

GROUPS

SEQUENCE OUTPUT PRIVILEGES

SEQSCHED: 1815 INCOME STATEMENT ANALYSIS FOR DECEMBER 2000

| USER | ACCESS | FORMAT | ST | CSS RESULT TAG | RESULT VALUE | OPT |
|---------|--------------|--------|-----|----------------|-----------------|-----|
| NEILB ▼ | EMAIL_DATA ▼ | HTML ▼ | ▼ | 3 | | ADD |
| NEILB | EMAIL_DATA ▼ | HTML ▼ | 2 ▼ | 2 DEPARTME | <?XML VERSION = | MOD |
| | | | | | | DEL |

IF YOU HAVE MADE CHANGES AND NOT SUBMITTED THEM USING THE ADD, MOD, OR DEL BUTTONS, THEY WILL NOT BE COMMITTED

FINISHED

1562

FIG. 15EE

| SCHEDULE SEQUENCES | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|-----------|----------|
| SEQUENCE NAME | USER | SCHEDULE DESC | FREQ | PRIORITY |
| TEST SEQUENCE FOR PRIVS | LS | | IMMEDIATE | ADD |
| SELECT SEQUENCE TO VIEW | | | | |
| <div>TEST SEQUENCE FOR PRIVS AND STEPS</div> <div> TEST SEQUENCE FOR PRIVS AND STEPS COST CENTER SCORING - PTD COST CENTER SCORING - PTD VARIANCE TEST VOAGE AR - PTD REVENUUE BY DEPARTMENT SOCCER SCORES BUDGET VARIANCE SCORING INCOME STATEMENT ANALYSIS </div> <div>VIEW</div> | | | | |

1564

FIG. 15FF

| SCHEDULE SEQUENCES | | | | |
|----------------------------------------------|---------------------------------|---------------|-----------|----------------------|
| SEQUENCE NAME | USER | SCHEDULE DESC | FREQ | PRIORITY |
| TEST SEQUENCE FOR PRIV | LS | | IMMEDIATE | ADD |
| SELECT SEQUENCE TO VIEW | | | | |
| TEST SEQUENCE FOR PRIVS AND STEPS | | VIEW | | |
| SEQUENCE: INCOME STATEMENT ANALYSIS USER: NB | | | | |
| ID | DESCRIPTION | STATUS | FREQ | START |
| 1815 | INCOME STAT'T ANALYSIS DEC 2001 | SCHED | DAILY | 23-APR-2001 08:30 PM |
| | | | | MOD |
| | | | | DEL |
| | | | | PRIVILEGES |

1566

FIG. 16A

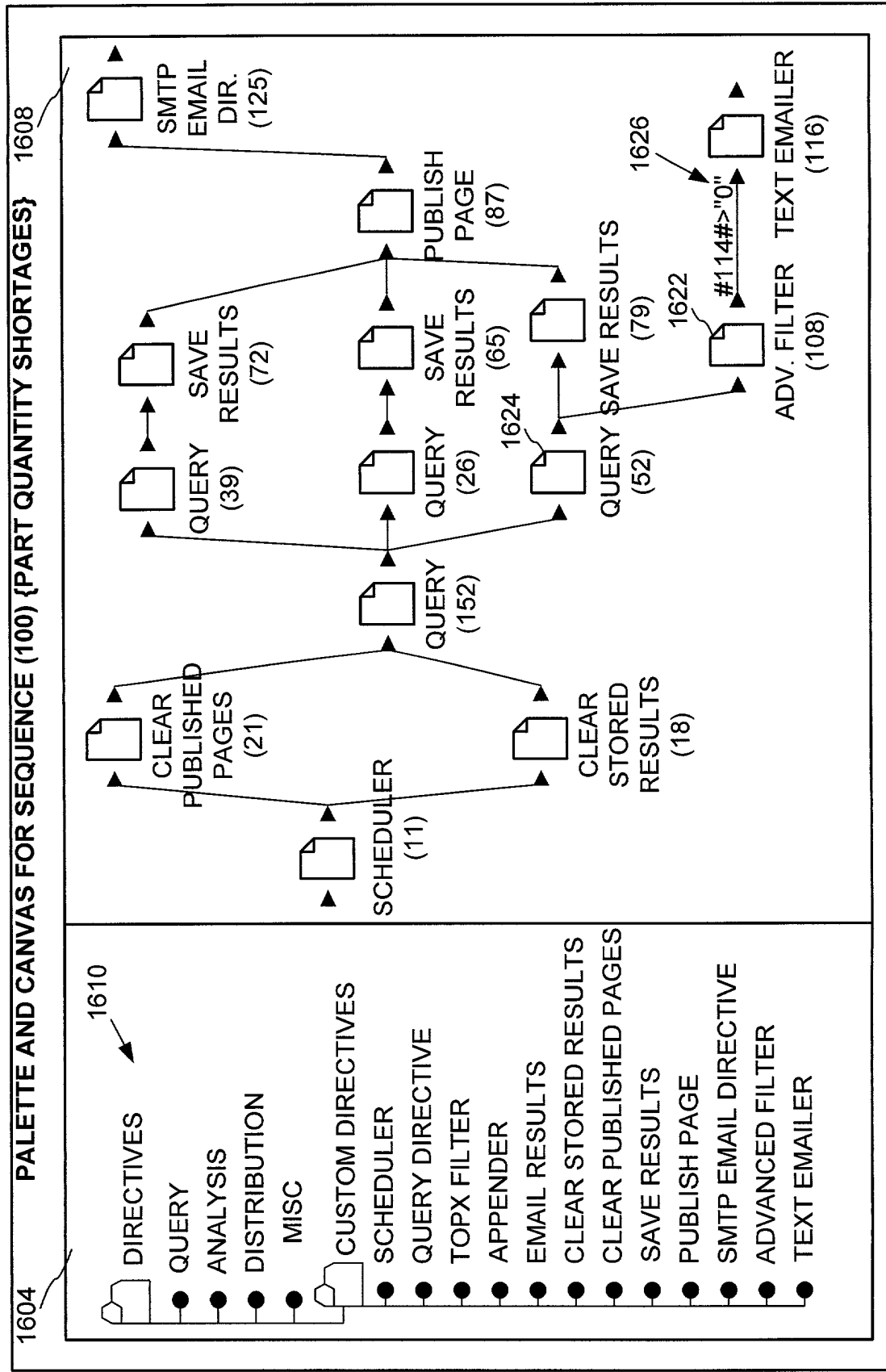


FIG. 16B

SEQUENCE PROPERTIES

SEQUENCE NAME:
DESCRIPTION:
NOTES:

PART QUANTITY SHORTAGES

FINDS PART QUANTITY SHORTAGES

SAVE THIS ONE

SEQUENCE AUTHOR:
SEQUENCE STATUS:

AUTHOR1
STATUS1

GLOBAL VARIABLES:

CAPTION:
VALUE:

CONNECT STRING

JDBC:ORACLE.THIN@123.245.23.1:1521:CONNECT30

CAPTION:
VALUE:

DATABASE USER NAME

RRIC1234

CAPTION:
VALUE:

DATABASE PASSWORD

SEQUENCE

CAPTION:
VALUE:

OWNERNAME

QRY_ANALYSIS

CAPTION:
VALUE:

CURRENT PERIOD

(1997-09) SEP-97

OK

CANCEL

ADD VARIABLE

X

1630

FIG. 16C

DIRECTIVE PROPERTIES

ID: 108 DIRECTIVE NAME: (ADFILTER) ADVANCED FILTER

ACTIVITY

INPUT

INPUT

INPUT

PARAM NAME (FILTER_EXP) FILTER EXPRESSION

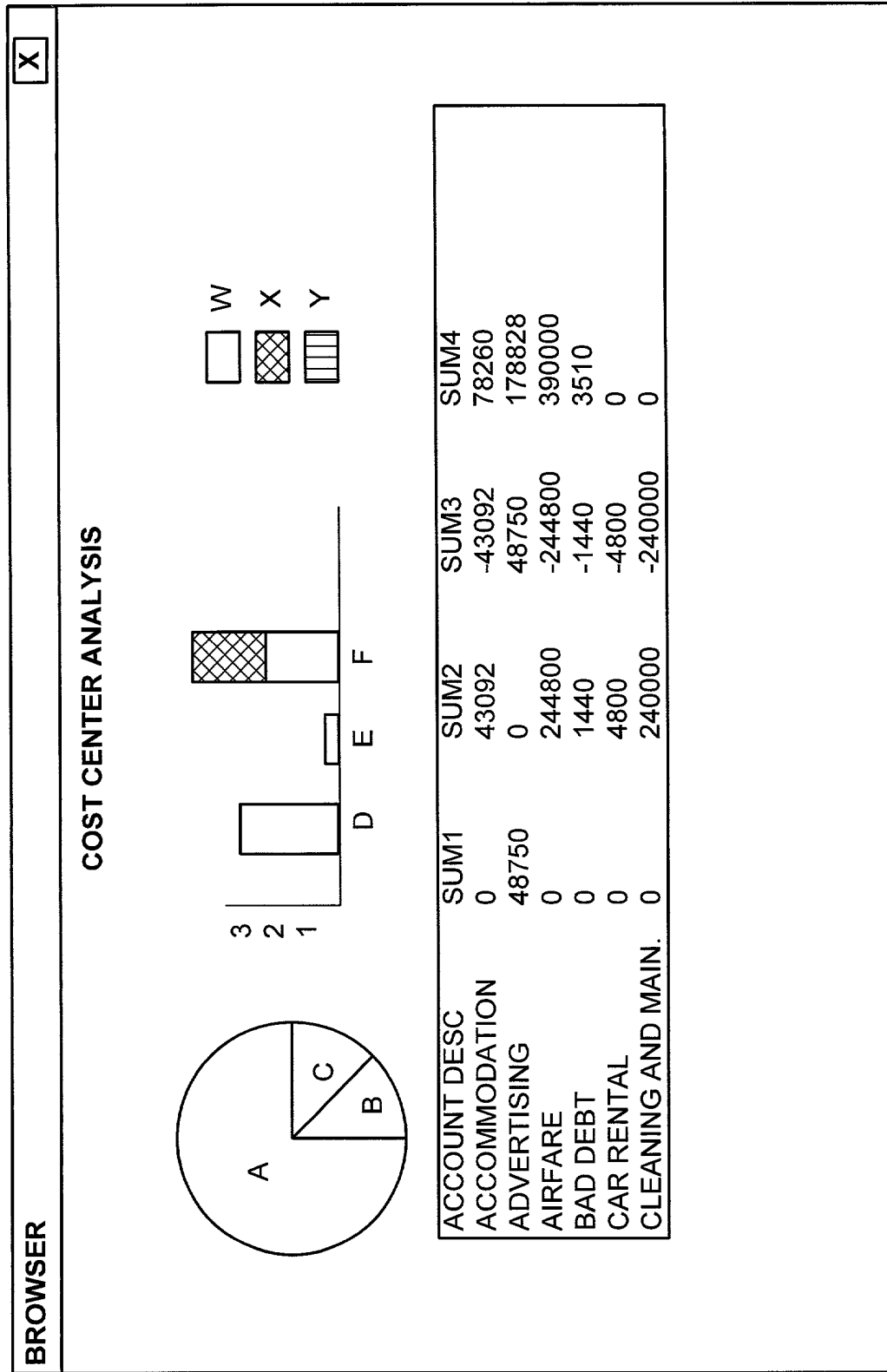
#REQUIRED_QUANTITY# >200

DB3(52) RESULT DATA

OK

CANCEL

FIG. 17



1702

FIG. 18

1801

```
<DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="DB2" DIRECTIVE_NAME="DATA DIRECTIVE"  
THREADING_EFFECT="SPLIT" DIRECTIVE_DESC="SQL DATADIRECTIVE THAT SPLITS  
RESULTS ON GIVEN COLUMN" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"  
DIRECTIVE_CATEGORY="DPA-MISC">  
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"  
PORT="9070"/>  
  <IN_PARAMETERS>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SQL"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="SQL"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN TO SPLIT"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLIT_COLUMN"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="CONNECTION STRING"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="CONNECTION_STRING"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE USER NAME"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="USERNAME"/>  
    <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD"/>  
  </IN_PARAMETERS>  
  <OUT_PARAMETERS>  
    <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET"/>  
    <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA"/>  
    <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="SPLIT VALUE"  
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLITVALUE"/>  
  </OUT_PARAMETERS>  
</DF_DIRECTIVE_DEFINITION>
```

FIG. 19A

1901
↙

```
- <DF_DIRECTIVE_DEFINITION_LIST>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="SB1" DIRECTIVE_NAME="SCHEDULER"
DIRECTIVE_CATEGORY="DPA-MISC" THREADING_EFFECT="SPLIT"
DIRECTIVE_DESC="SCHEDULE DIRECTIVE" DIRECTIVE_VENDOR="DPA"
DIRECTIVE_VERSION="1">
- <!-- CAN ADD A TYPE OR ICON NAME
-->
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="FREQUENCY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FREQUENCY" />
</IN_PARAMETERS>
<OUT_PARAMETERS />
<DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"
PORT="9070" />
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="DB2" DIRECTIVE_NAME="DATA DIRECTIVE"
THREADING_EFFECT="SPLIT" DIRECTIVE_DESC="SQL DATADIRECTIVE THAT SPLITS
RESULTS ON GIVEN COLUMN" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
<DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
</DF_DIRECTIVE_DEFINITION>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SQL"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SQL" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN TO SPLIT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLIT_COLUMN" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="CONNECTION STRING"
PARAM_DATA_TYPE="STRING" PARAM_NAME="CONNECTION_STRING" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE USER NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="USERNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD" />
</IN_PARAMETERS>
```

FIG. 19B

1902

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="SPLIT VALUE"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SPLITVALUE" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="AB1" DIRECTIVE_NAME="TOPX FILTER"
THREADING_EFFECT="STANDARD" DIRECTIVE_DESC="FILTER OUT TOP X ROWS FROM
RESULTSET" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4"
PORT="9070" />
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="COLUMN POSITION FOR TOPX"
PARAM_DATA_TYPE="STRING" PARAM_NAME="TOPX_COLUMN" />
</IN_PARAMETERS>
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="AB2" DIRECTIVE_NAME="APPENDER"
DIRECTIVE_TYPE="" THREADING_EFFECT="JOIN" DIRECTIVE_DESC="REJOIN SPLIT
RESULTSETS" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
</IN_PARAMETERS>
```

FIG. 19C

1903

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="MB1" DIRECTIVE_NAME="EMAIL RESULTS"
THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE_DESC="SIMPLE
EMAIL DIRECTIVE" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL ADDRESS LIST"
PARAM_DATA_TYPE="STRING" PARAM_NAME="MAILADR" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SUBJECT LINE"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SUBJECT" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="MESSAGE DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="MESSAGE" />
</IN_PARAMETERS>
<OUT_PARAMETERS />
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="CRB1" DIRECTIVE_NAME="CLEAR STORED
RESULTS" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="REMOVE PREVIOUS RESULT SETS FROM REPOSITORY"
DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-
MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="OWNER ID"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNERID" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTNAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTNAME" />
</IN_PARAMETERS>
<OUT_PARAMETERS />
</DF_DIRECTIVE_DEFINITION>
```

FIG. 19D

1904

```
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="CRC1" DIRECTIVE_NAME="CLEAR
PUBLISHED PAGES" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="REMOVE PREVIOUS PUBLISHED PAGES FROM REPOSITORY"
DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-
MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="OWNERID"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNERID" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />
</IN_PARAMETERS>
<OUT_PARAMETERS />
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="SR1" DIRECTIVE_NAME="SAVE RESULTS"
THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE_DESC="SAVES
RESULTS TO REPOSITORY" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET OWNER"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULT SET NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTNAME" />
</IN_PARAMETERS>
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULTSET ID"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSETID" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
```

FIG. 19E

1905

```
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="CR2" DIRECTIVE_NAME="PUBLISH PAGE"
THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE="" DIRECTIVE_DESC="PUBLISHES
PAGE & GRANTS SECURITY" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="GRANT SECURITY LIST"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SECDOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="METADATA FOR SECDOC"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SECMETA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="GRANT SECURITY LIST"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SECCOLNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE OWNER"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE SLICE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGESLICENAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE DEFINITION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGEDEFN" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P1" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P2" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P3" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P4" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P5" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="IN RESULTS KEY"
PARAM_DATA_TYPE="STRING" PARAM_NAME="P6" />
</IN_PARAMETERS>
```

FIG. 19F

1906

The diagram 1906 illustrates three XML code blocks. The first block, <OUT_PARAMETERS>, defines parameters for page ID, owner, name, and slice name. The second block, <DF_DIRECTIVE_DEFINITION>, defines a directive for retrieving data and assembling it into a result set. The third block, <IN_PARAMETERS>, defines parameters for SQL, connection string, database user name, password, and five additional parameters (P1-P5). The blocks are enclosed in a large right-facing curly bracket.

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE ID"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGEID" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE OWNER"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="PAGE SLICE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGESLICENAME" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="DB3" DIRECTIVE_NAME="DATA DIRECTIVE"
THREADING_EFFECT="STANDARD" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE
INTO RESULT SET" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
</DF_DIRECTIVE_DEFINITION>
<IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SQL"
PARAM_DATA_TYPE="PARAMETERIZED SQL STRING" PARAM_NAME="SQL" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="CONNECTION STRING"
PARAM_DATA_TYPE="STRING" PARAM_NAME="CONNECTION_STRING" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE USER NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="USERNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="DATABASE PASSWORD"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PWD" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P1" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P1" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P2" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P2" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P3" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P3" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P4" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P4" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="P5" PARAM_DATA_TYPE="STRING"
PARAM_NAME="P5" />
</IN_PARAMETERS>
```

FIG. 19G

1907

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT DATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSET" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULT METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTMETADATA" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="MB2" DIRECTIVE_NAME="SMTP EMAIL
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="SEND PUBLISHED PAGES" DIRECTIVE_VENDOR="DPA"
DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL ADDRESSES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ADDRDOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="METADATA FOR ADDRDOC"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ADDRMETA" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL COLUMN NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ADDRCOLNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL COLUMN NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="IDCOLNAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SUBJECT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SUBJECT" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE OWNER"
PARAM_DATA_TYPE="STRING" PARAM_NAME="OWNER" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE NAME"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGENAME" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="PAGE INSTANCE"
PARAM_DATA_TYPE="STRING" PARAM_NAME="PAGEINST" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="MAIL FORMAT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FORMAT" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SEND FROM MAIL ADDRESS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SENDFROM" />
</IN_PARAMETERS>
```


FIG. 19H

1908
↙

```
- <OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="ERROR MESSAGES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ERROR_MSG" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="ABFILTER" DIRECTIVE_NAME="ADVANCED
FILTER" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="FILTER RESULTS" DIRECTIVE_VENDOR="DPA"
DIRECTIVE_VERSION="1" DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
<IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="FILTER EXPRESSION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FILTER_EXP" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="METADOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSDOC" />
</IN_PARAMETERS>
<OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULTS METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="METADOC" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="RESULTS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSDOC" />
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="ROW COUNT"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ROWCOUNT" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
- <DF_DIRECTIVE_DEFINITION DIRECTIVE_ID="TEXTMAILER" DIRECTIVE_NAME="TEXT
MAILER" THREADING_EFFECT="STANDARD" DIRECTIVE_TYPE=""
DIRECTIVE_DESC="TEXT EMAILER" DIRECTIVE_VENDOR="DPA" DIRECTIVE_VERSION="1"
DIRECTIVE_CATEGORY="DPA-MISC">
  <DEPLOYMENT SERVICE="DPA_DIRECTIVE_MGR" MACHINE="SKUNKNT4" PORT="9070" /
>
```

FIG. 191

1909

```
- <IN_PARAMETERS>
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SUBJECT EXPRESSION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="SUBJECT_EXP" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="MESSAGE EXPRESSION"
PARAM_DATA_TYPE="STRING" PARAM_NAME="MESSAGE_EXP" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="EMAIL ADDRESSES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="EMAIL_ADDRESSES" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="SEND FROM ADDRESS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="FROM_ADDRESS" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS METADATA"
PARAM_DATA_TYPE="STRING" PARAM_NAME="METADOC" />
  <PARAMETER PARAM_TYPE="IN" PARAM_CAPTION="RESULTS"
PARAM_DATA_TYPE="STRING" PARAM_NAME="RESULTSDOC" />
</IN_PARAMETERS>
<OUT_PARAMETERS>
  <PARAMETER PARAM_TYPE="OUT" PARAM_CAPTION="ERROR MESSAGES"
PARAM_DATA_TYPE="STRING" PARAM_NAME="ERROR" />
</OUT_PARAMETERS>
</DF_DIRECTIVE_DEFINITION>
</DF_DIRECTIVE_DEFINITION_LIST>
```

FIG. 20A

2001

```
- <RESULTS_DOC>
- <DP_QUERY_DEF VERSION="1">
  <DPA_IDENTIFIERS DATA_SET="NW" WH_OWNER_NAME="RROC" />
  <HINTS />
- <COLUMN_DEFS>
  <COLUMN_DEF COLUMN_SORT_ATTRIBUTE="NONE"
  COLUMN_TEXT="VENDOR_NAME" TABLE_ALIAS="VENDOR_D"
  COLUMN_NAME="VENDOR_NAME" COLUMN_ALIAS="VENDOR_NAME"
  COLUMN_SORT_ORDER="1" COLUMN_POSITION="1"
  COLUMN_TYPE="GROUP_BY" />
  <COLUMN_DEF COLUMN_SORT_ATTRIBUTE="NONE"
  COLUMN_TEXT="PERIOD_KEY" TABLE_ALIAS="AP_INV_DETAIL_F"
  COLUMN_NAME="PERIOD_KEY" COLUMN_ALIAS="PERIOD_KEY"
  COLUMN_SORT_ORDER="2" COLUMN_POSITION="2"
  COLUMN_TYPE="GROUP_BY" />
  <COLUMN_DEF COLUMN_SORT_ATTRIBUTE="DESC"
  COLUMN_TEXT="SUM(AP_INV_DETAIL_F.INVOICE_LINE_AMOUNT)"
  TABLE_ALIAS="AP_INV_DETAIL_F"
  COLUMN_NAME="INVOICE_LINE_AMOUNT"
  COLUMN_ALIAS="SUM_INVOICE_LINE_AMOUNT"
  COLUMN_SORT_ORDER="3" COLUMN_POSITION="3"
  COLUMN_TYPE="AGGREGATE" />
</COLUMN_DEFS>
- <TABLE_DEFS>
  <TABLE_DEF TABLE_ALIAS="AP_INV_DETAIL_F"
  TABLE_NAME="AP_INV_DETAIL_F" />
  <TABLE_DEF TABLE_ALIAS="VENDOR_D" TABLE_NAME="VENDOR_D" /
>
</TABLE_DEFS>
- <DETAIL_FILTERS>
- <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="VENDOR_TYPE"
  TABLE_ALIAS="VENDOR_D" FILTER_PREC_OPER="AND"
  FILTER_OPERATOR="=">
  <FILTER_VALUE VALUE_DATA_TYPE="STRING">EMPLOYEE</
  FILTER_VALUE>
</FILTER>
```

FIG. 20B

2002

```
- <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="COMPANY_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND"
FILTER_OPERATOR="=">
  <FILTER_VALUE VALUE_DATA_TYPE="STRING">01</FILTER_VALUE>
</FILTER>
</DETAIL_FILTERS>
- <AGGREGATE_FILTERS>
- <FILTER FILTER_TYPE="VALUE"
COLUMN_TEXT="SUM(INVOICE_LINE_AMOUNT)"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND"
FILTER_OPERATOR="=">
  <FILTER_VALUE VALUE_DATA_TYPE="NUMBER">0</FILTER_VALUE>
</FILTER>
</AGGREGATE_FILTERS>
</DP_QUERY_DEF>
<DPA_QUERY_SERVER_INFO SERVICE="DPA_QUERY_SERVER"
MACHINE="EXH_2K" PORT="8069"
WAREHOUSE_SERVER="HD.DPAPPLICATIONS.COM"
WAREHOUSE_DBNAME="DEMO30"
WAREHOUSE_OWNER="RROC">FOODADDY</
DPA_QUERY_SERVER_INFO>
- <DP_DS_METADATA>
  <DP_COLUMN COLUMN_NAME="VENDOR_NAME"
COLUMN_DATA_TYPE="VARCHAR2" COLUMN_DS_ALIAS="C1"
COLUMN_TYPE="GROUP_BY" COLUMN_SORT_ATTRIBUTE="NONE"
COLUMN_SOURCE_ALIAS="VENDOR_NAME"
COLUMN_LABEL="VENDOR NAME" COLUMN_DESC=""
COLUMN_IS_CURRENCY="N" />
  <DP_COLUMN COLUMN_NAME="PERIOD_KEY"
COLUMN_DATA_TYPE="VARCHAR2" COLUMN_DS_ALIAS="C2"
COLUMN_TYPE="GROUP_BY" COLUMN_SORT_ATTRIBUTE="NONE"
COLUMN_SOURCE_ALIAS="PERIOD_KEY" COLUMN_LABEL="PERIOD
KEY" COLUMN_DESC="" COLUMN_IS_CURRENCY="N" />
  <DP_COLUMN COLUMN_NAME="SUM_INVOICE_LINE_AMOUNT"
COLUMN_DATA_TYPE="NUMBER" COLUMN_DS_ALIAS="C3"
COLUMN_TYPE="AGGREGATE" COLUMN_SORT_ATTRIBUTE="DESC"
COLUMN_SOURCE_ALIAS="SUM_INVOICE_LINE_AMOUNT"
COLUMN_LABEL="INVOICE LINE AMOUNT" COLUMN_DESC=""
COLUMN_IS_CURRENCY="Y" />
```

FIG. 20C

2003

</DP_DS_METADATA>
- <DP_DS>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>DEC-97</C2>
 <C3>28159</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>JAN-98</C2>
 <C3>15114.76</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>FEB-98</C2>
 <C3>4417.86</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>APR-98</C2>
 <C3>3439.10</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>DEC-97</C2>
 <C3>3263</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>NOV-97</C2>
 <C3>2907.85</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>FEB-98</C2>
 <C3>2799.31</C3>
 </R>

FIG. 20D

2004

- <R>
 <C1>KERRY JONES</C1>
 <C2>MAY-98</C2>
 <C3>2698.64</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>APR-98</C2>
 <C3>2657.20</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>MAY-98</C2>
 <C3>2549.68</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>MAR-98</C2>
 <C3>2511.98</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>MAR-98</C2>
 <C3>2459.87</C3>
 </R>
- <R>
 <C1>JAMIE FROST</C1>
 <C2>JUN-98</C2>
 <C3>2219.90</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>JUN-98</C2>
 <C3>2182.29</C3>
 </R>
- <R>
 <C1>KERRY JONES</C1>
 <C2>JAN-98</C2>
 <C3>1516</C3>
 </R>

FIG. 20E

- <R>
<C1>BLACK, CHRIS</C1>
<C2>NOV-97</C2>
<C3>651.06</C3>
</R>
</DP_DS>
</RESULTS_DOC>



2005
↙

FIG. 20E

FIG. 21A

2101

```
- <DF_WORKFLOW VERSION="1">
  <DF_WORKFLOW_HEADER DF_EDITOR_MAX_ID="172" FLOW_NAME="QTY ANALYSIS"
  FLOW_DESCRIPTION="QTY ANALYSIS FLOW" FLOW_STATUS="FLOW STATUS"
  FLOW_NOTES="" FLOW_AUTHOR="FLOW AUTHOR" />
- <DF_WORKFLOW_PARAMETERS>
- <PARAMETER NODE_ID="13" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECT STRING" PARAM_NAME="CONNECT_STRING"
PARAM_TYPE="OUT">
  <PARAM_SOURCE
PARAM_TYPE="VALUE">JDBC:ORACLE:THIN:@172.16.1.34:1521:DEMO30</
PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="14" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USER_NAME"
PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">RROC609</PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="15" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="USER_PWD"
PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DPA</PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="16" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="OWNERNAME" PARAM_NAME="OWNERNAME" PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">QTY_ANALYSIS</PARAM_SOURCE>
  </PARAMETER>
- <PARAMETER NODE_ID="17" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CURRENT PERIOD" PARAM_NAME="CURRPERIOD"
PARAM_TYPE="OUT">
  <PARAM_SOURCE PARAM_TYPE="VALUE">(1997-09) SEP-97</PARAM_SOURCE>
  </PARAMETER>
</DF_WORKFLOW_PARAMETERS>
- <DF_WORKFLOW_ACTIVITIES>
- <ACTIVITY NODE_ID="11">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
DIRECTIVE_NAME="SCHEDULER" THREADING_EFFECT="SPLIT" DIRECTIVE_ID="SB1"
DIRECTIVE_VERSION="1" DIRECTIVE_DESC="SCHEDULE DIRECTIVE" />
```


FIG. 21B

2102

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="12" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="FREQUENCY" PARAM_NAME="FREQUENCY" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">0</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS />
</ACTIVITY>
- <ACTIVITY_NODE_ID="18">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="CLEAR
STORED RESULTS" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="CRB1"
DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="REMOVE PREVIOUS
RESULT SETS FROM REPOSITORY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="19" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="OWNER
ID" PARAM_NAME="OWNERID" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="20" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTNAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">*</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS />
</ACTIVITY>
- <ACTIVITY_NODE_ID="21">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="CLEAR
PUBLISHED PAGES" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="CRC1"
DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="REMOVE PREVIOUS
PUBLISHED PAGES FROM REPOSITORY" />
```

FIG. 21C

2103

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="22" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="OWNERID" PARAM_NAME="OWNERID" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="23" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">*</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS />
</ACTIVITY>
- <ACTIVITY_NODE_ID="26">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="DETAIL QUERY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3"
DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO
RESULT SET" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="27" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC
COMPONENT_ITEM_DESC,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED)
QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND)
QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE_F.QUANTITY_SHORT)
QUANTITY_SHORT,SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY)
REQUIRED_QUANTITY FROM NW_COMPONENT_ITEM_D_0
NW_COMPONENT_ITEM_D,NW_DISC_SHORTAGE_F_0
NW_DISC_SHORTAGE_F,NW_ORG_PERIOD_D_0
NW_ORG_PERIOD_D,NW_WIP_ENTITY_D_0 NW_WIP_ENTITY_D WHERE
NW_DISC_SHORTAGE_F.COMPONENT_ITEM_KEY =
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_KEY AND
NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY
AND NW_DISC_SHORTAGE_F.WIP_ENTITY_KEY =NW_WIP_ENTITY_D.WIP_ENTITY_KEY
AND NW_ORG_PERIOD_D.ORG_PERIOD = '#P1#' GROUP BY
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC HAVING
SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY) > 0 ORDER BY
REQUIRED_QUANTITY DESC, COMPONENT_ITEM_DESC,REQUIRED_QUANTITY,
QUANTITY_ISSUED, QUANTITY_SHORT, QUANTITY_ON_HAND</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21D

2104
↙

```
- <PARAMETER NODE_ID="28" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="29" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="30" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="31" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="32" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="33" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="34" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="35" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
```

FIG. 21E

2105

```
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="36" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="37" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY NODE_ID="39">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="TREND QUERY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3"
DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO
RESULT SET" />
  <ACTIVITY_IN_PARAMETERS>
  - <PARAMETER NODE_ID="40" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
    <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT NW_ORG_PERIOD_D.ORG_PERIOD
PERIOD_NAME,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED)
QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND)
QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE_F.QUANTITY_SHORT)
QUANTITY_SHORT,SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY)
REQUIRED_QUANTITY FROM NW_DISC_SHORTAGE_F_0 NW_DISC_SHORTAGE_F,
NW_ORG_PERIOD_D_0 NW_ORG_PERIOD_D WHERE
NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY
GROUP BY NW_ORG_PERIOD_D.ORG_PERIOD ORDER BY PERIOD_NAME DESC</
PARAM_SOURCE>
  </PARAMETER>
  - <PARAMETER NODE_ID="41" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
    <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
  </PARAMETER>
```

FIG. 21F

2106

```
- <PARAMETER NODE_ID="42" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="43" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="44" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="45" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="46" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="47" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="48" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="49" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="50" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 21G

2107

```
- <ACTIVITY_NODE_ID="52">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="SUMMARY QUERY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA" DIRECTIVE_NAME="DATA
DIRECTIVE" THREADING_EFFECT="STANDARD" DIRECTIVE_ID="DB3"
DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND ASSEMBLE INTO
RESULT SET" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER_NODE_ID="53" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC
COMPONENT_ITEM_DESC,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ISSUED)
QUANTITY_ISSUED,SUM(NW_DISC_SHORTAGE_F.QUANTITY_ON_HAND)
QUANTITY_ON_HAND,SUM(NW_DISC_SHORTAGE_F.QUANTITY_SHORT)
QUANTITY_SHORT,SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY)
REQUIRED_QUANTITY FROM NW_COMPONENT_ITEM_D_0
NW_COMPONENT_ITEM_D,NW_DISC_SHORTAGE_F_0
NW_DISC_SHORTAGE_F,NW_ORG_PERIOD_D_0
NW_ORG_PERIOD_D,NW_WIP_ENTITY_D_0 NW_WIP_ENTITY_D WHERE
NW_DISC_SHORTAGE_F.COMPONENT_ITEM_KEY =
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_KEY AND
NW_DISC_SHORTAGE_F.ORG_PERIOD_KEY = NW_ORG_PERIOD_D.ORG_PERIOD_KEY
AND NW_DISC_SHORTAGE_F.WIP_ENTITY_KEY =NW_WIP_ENTITY_D.WIP_ENTITY_KEY
AND NW_ORG_PERIOD_D.ORG_PERIOD = '#P1#' GROUP BY
NW_COMPONENT_ITEM_D.COMPONENT_ITEM_DESC HAVING
SUM(NW_DISC_SHORTAGE_F.REQUIRED_QUANTITY) > 0 ORDER BY
REQUIRED_QUANTITY DESC, COMPONENT_ITEM_DESC,REQUIRED_QUANTITY,
QUANTITY_ISSUED, QUANTITY_SHORT, QUANTITY_ON_HAND</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="54" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="55" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">14</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21H

2108

```
- <PARAMETER NODE_ID="56" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">15</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="57" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">17</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="58" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="59" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="60" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="61" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="62" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="63" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 21I

2109

```
- <ACTIVITY NODE_ID="65">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="66" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="67" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">36</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="68" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">37</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="69" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DETAIL</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="70" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY NODE_ID="72">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />
```


FIG. 21J

2110

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="73" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="74" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">49</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="75" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">50</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="76" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">TREND</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="77" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY_NODE_ID="79">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SAVE RESULTS"
DIRECTIVE_ID="SR1" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SAVES RESULTS TO REPOSITORY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="80" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21K

2111

```
- <PARAMETER NODE_ID="81" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET" PARAM_NAME="RESULTSET" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">62</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="82" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET METADATA" PARAM_NAME="RESULTMETADATA" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">63</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="83" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="RESULT
SET NAME" PARAM_NAME="RESULTNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SUMMARY</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="84" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTSET ID" PARAM_NAME="RESULTSETID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY NODE_ID="87">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="PUBLISH PAGE"
DIRECTIVE_ID="CR2" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="PUBLISHES PAGE & GRANTS SECURITY" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="88" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="GRANT
SECURITY LIST" PARAM_NAME="SECDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">162</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="89" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="METADATA FOR SECDOC" PARAM_NAME="SECMETA"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">163</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="90" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="GRANT
SECURITY LIST" PARAM_NAME="SECCOLNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">USERNAME</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21L

2112

```
- <PARAMETER NODE_ID="91" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">16</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="92" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">STARTPAGE</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="93" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
SLICE NAME" PARAM_NAME="PAGESLICENAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">FIRST</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="94" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
DEFINITION" PARAM_NAME="PAGEDEFN" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE"><DP_PAGE_DEF><LAYER
LAYER_TYPE="HORIZONTAL" LAYER_BORDER="0" LAYER_PADDING="3"
LAYER_HEIGHT="100%" LAYER_WIDTH="100%"><LAYER LAYER_TYPE="VERTICAL"
LAYER_PADDING="3" LAYER_BORDER="0" LAYER_HEIGHT="225"
LAYER_WIDTH="100%"><LAYER LAYER_TYPE="WIDGET" LAYER_HEIGHT="100%"
LAYER_WIDTH="50%"><WIDGET WIDGET_ID="DP_PIE_CHART"><PARAMETERS><PARAM
PARAM_NAME="TITLE">MY PIE</PARAM><PARAM PARAM_NAME="DSID">#P3#</
PARAM><PARAM PARAM_NAME="VALUECOL">REQUIRED_QUANTITY</PARAM><PARAM
PARAM_NAME="LABELCOL">COMPONENT_ITEM_DESC</PARAM><PARAM
PARAM_NAME="FILTERTYPE">TOP</PARAM><PARAM PARAM_NAME="FILTERVAL">10</
PARAM></PARAMETERS></WIDGET></LAYER><LAYER LAYER_TYPE="WIDGET"
LAYER_HEIGHT="100%" LAYER_WIDTH="50%"><WIDGET
WIDGET_ID="DP_BAR_CHART2"><PARAMETERS><PARAM PARAM_NAME="TITLE">MY
CHART TITLE</PARAM><PARAM PARAM_NAME="DSID">#P2#</PARAM><PARAM
PARAM_NAME="MEASURECOLS">QUANTITY_ON_HAND|QUANTITY_ISSUED|QUANTITY_SH
ORT|REQUIRED_QUANTITY</PARAM><PARAM PARAM_NAME="XAXISLABELS">ON
HAND|ISSUED|SHORT|REQUIRED</PARAM><PARAM
PARAM_NAME="SERIESCOL">PERIOD_NAME</PARAM></PARAMETERS></WIDGET></
LAYER></LAYER><LAYER LAYER_TYPE="HORIZONTAL" LAYER_BORDER="0"
LAYER_PADDING="3" LAYER_HEIGHT="80%" LAYER_WIDTH="100%"><LAYER
LAYER_TYPE="WIDGET" LAYER_HEIGHT="100%" LAYER_WIDTH="100%"><WIDGET
WIDGET_ID="DP_REPORT_VIEWER"><PARAMETERS><PARAM PARAM_NAME="TITLE">MY
TITLE</PARAM> <PARAM PARAM_NAME="DSID">#P1#</PARAM></PARAMETERS></
WIDGET></LAYER></LAYER></LAYER></DP_PAGE_DEF></PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="95" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21M

2113

```
- <PARAMETER NODE_ID="96" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">77</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="97" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">84</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="98" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="99" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="100" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="IN
RESULTS KEY" PARAM_NAME="P6" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">70</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
<ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="101" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
ID" PARAM_NAME="PAGEID" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="102" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
OWNER" PARAM_NAME="OWNER" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="103" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="104" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE
SLICE NAME" PARAM_NAME="PAGESLICENAME" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 21N

2114

```
- <ACTIVITY_NODE_ID="108">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="OUTOF BOUNDS QTY" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="ADVANCED FILTER"
DIRECTIVE_ID="ABFILTER" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="FILTER RESULTS" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER_NODE_ID="109" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="FILTER
EXPRESSION" PARAM_NAME="FILTER_EXP" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">#REQUIRED_QUANTITY# > 200</
PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="110" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">63</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="111" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">62</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER_NODE_ID="112" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC"
PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER_NODE_ID="113" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER_NODE_ID="114" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ROW
COUNT" PARAM_NAME="ROWCOUNT" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
```

FIG. 210

2115

```
- <ACTIVITY_NODE_ID="116">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
  ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
  THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="TEXT EMAILER"
  DIRECTIVE_ID="TEXTEMAILER" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
  DIRECTIVE_DESC="TEXT EMAILER" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER_NODE_ID="117" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="SUBJECT EXPRESSION" PARAM_NAME="SUBJECT_EXP"
  PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">OUT OF BOUNDS QTY CONDITION</
  PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="118" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="MESSAGE EXPRESSION" PARAM_NAME="MESSAGE_EXP"
  PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">COMPONENT: #COMPONENT_ITEM_DESC#
  REQUIRES #REQUIRED_QUANTITY# ADDITIONAL UNITS</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="119" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
  ADDRESSES" PARAM_NAME="EMAIL_ADDRESSES" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">EXH@DPAPPLICATIONS.COM</
  PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="120" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="SEND
  FROM ADDRESS" PARAM_NAME="FROM_ADDRESS" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">DF@DPAPPLICATIONS.COM</
  PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="121" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="RESULTS METADATA" PARAM_NAME="METADOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">112</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER_NODE_ID="122" PARAM_DATA_TYPE="STRING"
  PARAM_CAPTION="RESULTS" PARAM_NAME="RESULTSDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">113</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
```

FIG. 21P

2116

```
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="123" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ERROR
MESSAGES" PARAM_NAME="ERROR" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
- <ACTIVITY NODE_ID="125">
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"
ACTIVITY_DESCRIPTION="EMAIL LINK" />
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="SMTP EMAIL DIRECTIVE"
DIRECTIVE_ID="MB2" DIRECTIVE_TYPE="" DIRECTIVE_VERSION="1"
DIRECTIVE_DESC="SEND PUBLISHED PAGES" />
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="126" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
ADDRESSES" PARAM_NAME="ADDRDOC" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">162</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="127" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="METADATA FOR ADDRDOC" PARAM_NAME="ADDRMETA"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">163</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="128" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
COLUMN NAME" PARAM_NAME="ADDRCOLNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">EMAIL_ADDRESS</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="129" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="EMAIL
COLUMN NAME" PARAM_NAME="IDCOLNAME" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">USERNAME</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="130" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="SUBJECT" PARAM_NAME="SUBJECT" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">QTY ANALYSIS UPDATED</PARAM_SOURCE>
</PARAMETER>
```

FIG. 21Q

2117

```
- <PARAMETER NODE_ID="131" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE  
OWNER" PARAM_NAME="OWNER" PARAM_TYPE="IN">  
  <PARAM_SOURCE PARAM_TYPE="ID">102</PARAM_SOURCE>  
</PARAMETER>  
- <PARAMETER NODE_ID="132" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE  
NAME" PARAM_NAME="PAGENAME" PARAM_TYPE="IN">  
  <PARAM_SOURCE PARAM_TYPE="ID">103</PARAM_SOURCE>  
</PARAMETER>  
- <PARAMETER NODE_ID="133" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="PAGE  
INSTANCE" PARAM_NAME="PAGEINST" PARAM_TYPE="IN">  
  <PARAM_SOURCE PARAM_TYPE="ID">104</PARAM_SOURCE>  
</PARAMETER>  
- <PARAMETER NODE_ID="134" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="MAIL  
FORMAT" PARAM_NAME="FORMAT" PARAM_TYPE="IN">  
  <PARAM_SOURCE PARAM_TYPE="VALUE">DYNAM</PARAM_SOURCE>  
</PARAMETER>  
- <PARAMETER NODE_ID="135" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="SEND  
FROM MAIL ADDRESS" PARAM_NAME="SENDFROM" PARAM_TYPE="IN">  
  <PARAM_SOURCE PARAM_TYPE="VALUE">DF@DPAPPLICATIONS.COM</  
PARAM_SOURCE>  
</PARAMETER>  
</ACTIVITY_IN_PARAMETERS>  
- <ACTIVITY_OUT_PARAMETERS>  
- <PARAMETER NODE_ID="136" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="ERROR  
MESSAGES" PARAM_NAME="ERROR_MSG" PARAM_TYPE="OUT">  
  <PARAM_SOURCE />  
</PARAMETER>  
</ACTIVITY_OUT_PARAMETERS>  
</ACTIVITY>  
- <ACTIVITY NODE_ID="152">  
  <ACTIVITY_HEADER ACTIVITY_NOTES="ACTIVITY NOTES"  
ACTIVITY_DESCRIPTION="ACTIVITY DESCRIPTION" />  
  <ACTIVITY_IMPLEMENTATION DIRECTIVE_VENDOR="DPA"  
THREADING_EFFECT="STANDARD" DIRECTIVE_NAME="DATA DIRECTIVE"  
DIRECTIVE_ID="DB3" DIRECTIVE_VERSION="1" DIRECTIVE_DESC="RETRIEVE DATA AND  
ASSEMBLE INTO RESULT SET" />
```


FIG. 21R

2118

```
- <ACTIVITY_IN_PARAMETERS>
- <PARAMETER NODE_ID="153" PARAM_DATA_TYPE="PARAMETERIZED SQL STRING"
PARAM_CAPTION="SQL" PARAM_NAME="SQL" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">SELECT USERNAME,EMAIL_ADDRESS FROM
OA3.DF_QTYAPP_USERS</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="154" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="CONNECTION STRING" PARAM_NAME="CONNECTION_STRING"
PARAM_TYPE="IN">
  <PARAM_SOURCE
PARAM_TYPE="VALUE">JDBC:ORACLE:THIN:@HD.DPAPPLICATIONS.COM:1521:NRB816</
PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="155" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE USER NAME" PARAM_NAME="USERNAME"
PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">OA3</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="156" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="DATABASE PASSWORD" PARAM_NAME="PWD" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="VALUE">OA3</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="157" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P1"
PARAM_NAME="P1" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="158" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P2"
PARAM_NAME="P2" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="159" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P3"
PARAM_NAME="P3" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="160" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P4"
PARAM_NAME="P4" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
- <PARAMETER NODE_ID="161" PARAM_DATA_TYPE="STRING" PARAM_CAPTION="P5"
PARAM_NAME="P5" PARAM_TYPE="IN">
  <PARAM_SOURCE PARAM_TYPE="ID">13</PARAM_SOURCE>
</PARAMETER>
</ACTIVITY_IN_PARAMETERS>
```

FIG. 21S

2119

```
- <ACTIVITY_OUT_PARAMETERS>
- <PARAMETER NODE_ID="162" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULT DATA" PARAM_NAME="RESULTSET" PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
- <PARAMETER NODE_ID="163" PARAM_DATA_TYPE="STRING"
PARAM_CAPTION="RESULT METADATA" PARAM_NAME="RESULTMETADATA"
PARAM_TYPE="OUT">
  <PARAM_SOURCE />
</PARAMETER>
</ACTIVITY_OUT_PARAMETERS>
</ACTIVITY>
</DF_WORKFLOW_ACTIVITIES>
- <DF_WORKFLOW_TRANSITIONS>
  <TRANSITION NODE_ID="24" FROM_ACTIVITY_ID="11" TO_ACTIVITY_ID="18"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="25" FROM_ACTIVITY_ID="11" TO_ACTIVITY_ID="21"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="71" FROM_ACTIVITY_ID="26" TO_ACTIVITY_ID="65"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="78" FROM_ACTIVITY_ID="39" TO_ACTIVITY_ID="72"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="85" FROM_ACTIVITY_ID="52" TO_ACTIVITY_ID="79"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="105" FROM_ACTIVITY_ID="65" TO_ACTIVITY_ID="87"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="106" FROM_ACTIVITY_ID="72" TO_ACTIVITY_ID="87"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="107" FROM_ACTIVITY_ID="79" TO_ACTIVITY_ID="87"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="115" FROM_ACTIVITY_ID="52" TO_ACTIVITY_ID="108"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
  <TRANSITION NODE_ID="124" FROM_ACTIVITY_ID="108" TO_ACTIVITY_ID="116"
TRANSITION_EXPRESSION="#114# > "0" DESCRIPTION="EMAIL ONLY EXCEPTIONS"
NOTES="NOTES" />
```

FIG. 21T

2120
↙

```
<TRANSITION NODE_ID="137" FROM_ACTIVITY_ID="87" TO_ACTIVITY_ID="125"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="164" FROM_ACTIVITY_ID="18" TO_ACTIVITY_ID="152"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="165" FROM_ACTIVITY_ID="21" TO_ACTIVITY_ID="152"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="166" FROM_ACTIVITY_ID="152" TO_ACTIVITY_ID="26"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="167" FROM_ACTIVITY_ID="152" TO_ACTIVITY_ID="39"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
<TRANSITION NODE_ID="168" FROM_ACTIVITY_ID="152" TO_ACTIVITY_ID="52"
TRANSITION_EXPRESSION="" DESCRIPTION="DESCRIPTION" NOTES="NOTES" />
</DF_WORKFLOW_TRANSITIONS>
<DF_WORKFLOW_EDITOR>
<ACTIVITY_VISUAL_EDITING NODE_ID="11" YCOORD="140" XCOORD="12" />
<ACTIVITY_VISUAL_EDITING NODE_ID="18" YCOORD="330" XCOORD="47" />
<ACTIVITY_VISUAL_EDITING NODE_ID="21" YCOORD="50" XCOORD="60" />
<ACTIVITY_VISUAL_EDITING NODE_ID="26" YCOORD="200" XCOORD="294" />
<ACTIVITY_VISUAL_EDITING NODE_ID="39" YCOORD="70" XCOORD="294" />
<ACTIVITY_VISUAL_EDITING NODE_ID="52" YCOORD="320" XCOORD="304" />
<ACTIVITY_VISUAL_EDITING NODE_ID="65" YCOORD="200" XCOORD="408" />
<ACTIVITY_VISUAL_EDITING NODE_ID="72" YCOORD="70" XCOORD="408" />
<ACTIVITY_VISUAL_EDITING NODE_ID="79" YCOORD="320" XCOORD="428" />
<ACTIVITY_VISUAL_EDITING NODE_ID="87" YCOORD="200" XCOORD="537" />
<ACTIVITY_VISUAL_EDITING NODE_ID="108" YCOORD="430" XCOORD="359" />
<ACTIVITY_VISUAL_EDITING NODE_ID="116" YCOORD="420" XCOORD="587" />
<ACTIVITY_VISUAL_EDITING NODE_ID="125" YCOORD="320" XCOORD="580" />
<ACTIVITY_VISUAL_EDITING NODE_ID="152" YCOORD="200" XCOORD="160" />
</DF_WORKFLOW_EDITOR>
</DF_WORKFLOW>
```

FIG. 22A

2201

```
<DP_QUERY_DEF VERSION="1">
  <DPA_IDENTIFIERS DATA_SET="OAS" WH_OWNER_NAME="PART"/>
  <HINTS/>
  <COLUMN_DEFS>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_BUDGET"
COLUMN_ALIAS="PTD_BUDGET" COLUMN_SORT_ORDER="3"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="3" TABLE_ALIAS="INCOME_STMT_A" COLUMN_TAG="PTD_BUDGET"/>
    <COLUMN_DEF SUMMARY_TYPE="NONE" COLUMN_NAME="LINE_NAME"
COLUMN_ALIAS="LINE_NAME" COLUMN_SORT_ORDER="1"
COLUMN_SORT_ATTRIBUTE="ASC" COLUMN_TYPE="ATTRIBUTE" COLUMN_EXPR=""
COLUMN_POSITION="1" TABLE_ALIAS="INC_STMT_LINES_D" COLUMN_TAG="LINE_NAME"/>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_VARIANCE_PCT"
COLUMN_ALIAS="PTD_VARIANCE_PCT" COLUMN_SORT_ORDER="6"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="6" TABLE_ALIAS="INCOME_STMT_A"
COLUMN_TAG="PTD_VAR_PCT"/>
    <COLUMN_DEF SUMMARY_TYPE="NONE" COLUMN_NAME="DEPARTMENT_DESC"
COLUMN_ALIAS="DEPT_DESC" COLUMN_SORT_ORDER="2"
COLUMN_SORT_ATTRIBUTE="ASC" COLUMN_TYPE="ATTRIBUTE" COLUMN_EXPR=""
COLUMN_POSITION="2" TABLE_ALIAS="DEPARTMENT_D" COLUMN_TAG="DEPT_DESC"/>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_VARIANCE"
COLUMN_ALIAS="PTD_VARIANCE" COLUMN_SORT_ORDER="5"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="5" TABLE_ALIAS="INCOME_STMT_A" COLUMN_TAG="PTD_VAR"/>
    <COLUMN_DEF SUMMARY_TYPE="SUM" COLUMN_NAME="PTD_ACTUAL"
COLUMN_ALIAS="PTD_ACTUAL" COLUMN_SORT_ORDER="4"
COLUMN_SORT_ATTRIBUTE="NONE" COLUMN_TYPE="MEASURE" COLUMN_EXPR=""
COLUMN_POSITION="4" TABLE_ALIAS="INCOME_STMT_A" COLUMN_TAG="PTD_ACTUAL"/>
  </COLUMN_DEFS>
```

FIG. 22B

2202

```
<TABLE_DEFS>
  <TABLE_DEF TABLE_ALIAS="VENDOR_D" TABLE_NAME="VENDOR_D"/>
  <TABLE_DEF TABLE_ALIAS="AP_INV_DETAIL_F" TABLE_NAME="AP_INV_DETAIL_F"/>
  <TABLE_DEF TABLE_ALIAS="INCOME_STMT_A" TABLE_NAME="INCOME_STMT_A"/>
  <TABLE_DEF TABLE_ALIAS="DEPARTMENT_D" TABLE_NAME="DEPARTMENT_D"/>
  <TABLE_DEF TABLE_ALIAS="INC_STMT_LINES_D"
TABLE_NAME="INC_STMT_LINES_D"/>
</TABLE_DEFS>
<DETAIL_FILTERS>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="PERIOD_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">DEC-97</FILTER_VALUE>
  </FILTER>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="VENDOR_TYPE"
TABLE_ALIAS="VENDOR_D" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">EMPLOYEE</FILTER_VALUE>
  </FILTER>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="COMPANY_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">01</FILTER_VALUE>
  </FILTER>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="DEPARTMENT_KEY"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND" FILTER_OPERATOR="=">
    <FILTER_VALUE VALUE_DATA_TYPE="STRING">560</FILTER_VALUE>
  </FILTER>
</DETAIL_FILTERS>
<AGGREGATE_FILTERS>
  <FILTER FILTER_TYPE="VALUE" COLUMN_TEXT="SUM(INVOICE_LINE_AMOUNT)"
TABLE_ALIAS="AP_INV_DETAIL_F" FILTER_PREC_OPER="AND"
FILTER_OPERATOR=">">
    <FILTER_VALUE VALUE_DATA_TYPE="NUMBER">0</FILTER_VALUE>
  </FILTER>
</AGGREGATE_FILTERS>
</DP_QUERY_DEF>
```

FIG. 23A

2301

```
- <DP_SCHEMA_DOC VERSION="1">
  <DPA_QUERY_SERVER_INFO SERVICE="DPA_QUERY_SERVER" MACHINE="EXH_2K"
PORT="8069" WAREHOUSE_SERVER="HD.DPAPPLICATIONS.COM"
WAREHOUSE_DBNAME="DEMO30" WAREHOUSE_OWNER="RROC"
SCHEMA="AP_INV_DETAIL_F" DATA_SET="NW">FOODADDY</
DPA_QUERY_SERVER_INFO>
- <DP_DIMENSIONS>
- <DIMENSION LABEL="ACCOUNTING DATE" NAME="ACCOUNTING_DATE_D">
  <ATTRIBUTE LABEL="ACCOUNTING DATE KEY" NAME="ACCOUNTING_DATE_KEY" />
  <ATTRIBUTE LABEL="ACCOUNTING MONTH" NAME="ACCOUNTING_MONTH" />
  <ATTRIBUTE LABEL="ACCOUNTING PERIOD" NAME="ACCOUNTING_PERIOD" />
  <ATTRIBUTE LABEL="ACCOUNTING PERIOD KEY"
NAME="ACCOUNTING_PERIOD_KEY" />
  <ATTRIBUTE LABEL="ACCOUNTING PERIOD QUARTER"
NAME="ACCOUNTING_PERIOD_QUARTER" />
  <ATTRIBUTE LABEL="ACCOUNTING QUARTER" NAME="ACCOUNTING_QUARTER" />
  <ATTRIBUTE LABEL="ACCOUNTING WEEK ENDING"
NAME="ACCOUNTING_WEEK_ENDING" />
  <ATTRIBUTE LABEL="ACCOUNTING YEAR" NAME="ACCOUNTING_YEAR" />
</DIMENSION>
- <DIMENSION LABEL="ACCOUNT" NAME="ACCOUNT_D">
  <ATTRIBUTE LABEL="ACCOUNT" NAME="ACCOUNT" />
  <ATTRIBUTE LABEL="LINE NAME" NAME="LINE_NAME" />
  <ATTRIBUTE LABEL="LINE SEQUENCE KEY" NAME="LINE_SEQUENCE_KEY" />
  <ATTRIBUTE LABEL="REPORT SECTION" NAME="REPORT_SECTION" />
  <ATTRIBUTE LABEL="REPORT SEQUENCE" NAME="REPORT_SEQUENCE" />
  <ATTRIBUTE LABEL="ACCOUNT KEY" NAME="ACCOUNT_KEY" />
  <ATTRIBUTE LABEL="ACCOUNT DESCRIPTION" NAME="ACCOUNT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="ACCOUNT ROLLUPS" NAME="ACCOUNT_RLUP_D">
  <ATTRIBUTE LABEL="ACCOUNT" NAME="ACCOUNT" />
  <ATTRIBUTE LABEL="ACCOUNT KEY" NAME="ACCOUNT_KEY" />
  <ATTRIBUTE LABEL="ACCOUNT ROLLUP DESCRIPTION" NAME="ROLLUP_DESC" />
  <ATTRIBUTE LABEL="ACCOUNT ROLLUP CODE" NAME="ROLLUP_CODE" />
  <ATTRIBUTE LABEL="ACCOUNT DESCRIPTION" NAME="ACCOUNT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="AP HOLD CODES" NAME="AP_HOLD_CODE_D">
  <ATTRIBUTE LABEL="AP HOLD CODE" NAME="AP_HOLD_CODE" />
  <ATTRIBUTE LABEL="AP HOLD CODE DESCRIPTION" NAME="AP_HOLD_CODE_DESC"
/>
  <ATTRIBUTE LABEL="AP HOLD CODE KEY" NAME="AP_HOLD_CODE_KEY" />
  <ATTRIBUTE LABEL="AP HOLD CODE TYPE" NAME="AP_HOLD_CODE_TYPE" />
</DIMENSION>
```

FIG. 23B

2302

```
- <DIMENSION LABEL="AP HOLD STATUS" NAME="AP_HOLD_STATUS_D">
  <ATTRIBUTE LABEL="AP HOLD STATUS" NAME="AP_HOLD_STATUS" />
  <ATTRIBUTE LABEL="AP HOLD STATUS KEY" NAME="AP_HOLD_STATUS_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP INVOICES" NAME="AP_INVOICE_D">
  <ATTRIBUTE LABEL="AP INVOICE NUMBER" NAME="AP_INVOICE" />
  <ATTRIBUTE LABEL="AP INVOICE DATE" NAME="AP_INVOICE_DATE" />
  <ATTRIBUTE LABEL="AP INVOICE KEY" NAME="AP_INVOICE_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP INVOICE TYPES" NAME="AP_INVOICE_TYPE_D">
  <ATTRIBUTE LABEL="AP INVOICE TYPE" NAME="AP_INVOICE_TYPE" />
  <ATTRIBUTE LABEL="AP INVOICE TYPE KEY" NAME="AP_INVOICE_TYPE_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP PAYMENT TERMS" NAME="AP_PAYMENT_TERM_D">
  <ATTRIBUTE LABEL="AP PAYMENT TERM" NAME="AP_PAYMENT_TERM" />
  <ATTRIBUTE LABEL="AP PAYMENT TERM DESCRIPTION"
NAME="AP_PAYMENT_TERM_DESC" />
  <ATTRIBUTE LABEL="AP PAYMENT TERM KEY" NAME="AP_PAYMENT_TERM_KEY" />
</DIMENSION>
- <DIMENSION LABEL="PO AUTHORIZER" NAME="AUTHORIZER_D">
  <ATTRIBUTE LABEL="AUTHORIZER" NAME="AUTHORIZER" />
  <ATTRIBUTE LABEL="AUTHORIZER KEY" NAME="AUTHORIZER_KEY" />
</DIMENSION>
- <DIMENSION LABEL="BUYERS" NAME="BUYER_D">
  <ATTRIBUTE LABEL="BUYER" NAME="BUYER" />
  <ATTRIBUTE LABEL="AUTHORIZATION LIMIT" NAME="BUYER_AUTHORIZATION_LIMIT"
/>
  <ATTRIBUTE LABEL="END DATE ACTIVE" NAME="BUYER_END_DATE_ACTIVE" />
  <ATTRIBUTE LABEL="BUYER KEY" NAME="BUYER_KEY" />
  <ATTRIBUTE LABEL="START DATE ACTIVE" NAME="BUYER_START_DATE_ACTIVE" />
</DIMENSION>
- <DIMENSION LABEL="COMPANY" NAME="COMPANY_D">
  <ATTRIBUTE LABEL="COMPANY" NAME="COMPANY" />
  <ATTRIBUTE LABEL="COMPANY DESCRIPTION" NAME="COMPANY_DESC" />
  <ATTRIBUTE LABEL="COMPANY KEY" NAME="COMPANY_KEY" />
</DIMENSION>
- <DIMENSION LABEL="CURRENCY" NAME="CURRENCY_D">
  <ATTRIBUTE LABEL="CURRENCY" NAME="CURRENCY" />
  <ATTRIBUTE LABEL="CURRENCY DESCRIPTION" NAME="CURRENCY_DESC" />
  <ATTRIBUTE LABEL="CURRENCY KEY" NAME="CURRENCY_KEY" />
</DIMENSION>
```

FIG. 23C

2303

```
- <DIMENSION LABEL="DEPARTMENT" NAME="DEPARTMENT_D">
  <ATTRIBUTE LABEL="DEPARTMENT" NAME="DEPARTMENT" />
  <ATTRIBUTE LABEL="DEPARTMENT KEY" NAME="DEPARTMENT_KEY" />
  <ATTRIBUTE LABEL="DEPARTMENT DESCRIPTION" NAME="DEPARTMENT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="DEPARTMENT ROLLUPS" NAME="DEPARTMENT_RLUP_D">
  <ATTRIBUTE LABEL="DEPARTMENT" NAME="DEPARTMENT" />
  <ATTRIBUTE LABEL="DEPARTMENT ROLLUP DESC" NAME="ROLLUP_DESC" />
  <ATTRIBUTE LABEL="DEPARTMENT ROLLUP CODE" NAME="ROLLUP_CODE" />
  <ATTRIBUTE LABEL="DEPARTMENT DESCRIPTION" NAME="DEPARTMENT_DESC" />
  <ATTRIBUTE LABEL="DEPARTMENT KEY" NAME="DEPARTMENT_KEY" />
</DIMENSION>
- <DIMENSION LABEL="AP DUE DATES" NAME="DUE_DATE_D">
  <ATTRIBUTE LABEL="DUE DATE KEY" NAME="DUE_DATE_KEY" />
  <ATTRIBUTE LABEL="DUE MONTH" NAME="DUE_MONTH" />
  <ATTRIBUTE LABEL="DUE PERIOD" NAME="DUE_PERIOD" />
  <ATTRIBUTE LABEL="DUE PERIOD KEY" NAME="DUE_PERIOD_KEY" />
  <ATTRIBUTE LABEL="DUE PERIOD QUARTER" NAME="DUE_PERIOD_QUARTER" />
  <ATTRIBUTE LABEL="DUE QUARTER" NAME="DUE_QUARTER" />
  <ATTRIBUTE LABEL="DUE WEEK ENDING" NAME="DUE_WEEK_ENDING" />
  <ATTRIBUTE LABEL="DUE YEAR" NAME="DUE_YEAR" />
</DIMENSION>
- <DIMENSION LABEL="INVOICE DATES" NAME="INVOICE_DATE_D">
  <ATTRIBUTE LABEL="INVOICE DATE KEY" NAME="INVOICE_DATE_KEY" />
  <ATTRIBUTE LABEL="INVOICE MONTH" NAME="INVOICE_MONTH" />
  <ATTRIBUTE LABEL="INVOICE PERIOD" NAME="INVOICE_PERIOD" />
  <ATTRIBUTE LABEL="INVOICE PERIOD KEY" NAME="INVOICE_PERIOD_KEY" />
  <ATTRIBUTE LABEL="INVOICE PERIOD QUARTER"
NAME="INVOICE_PERIOD_QUARTER" />
  <ATTRIBUTE LABEL="INVOICE QUARTER" NAME="INVOICE_QUARTER" />
  <ATTRIBUTE LABEL="INVOICE WEEK ENDING" NAME="INVOICE_WEEK_ENDING" />
  <ATTRIBUTE LABEL="INVOICE YEAR" NAME="INVOICE_YEAR" />
</DIMENSION>
- <DIMENSION LABEL="JE BATCHS" NAME="JE_BATCH_D">
  <ATTRIBUTE LABEL="ACTUAL FLAG" NAME="ACTUAL_FLAG" />
  <ATTRIBUTE LABEL="DEFAULT PERIOD NAME" NAME="DEFAULT_PERIOD_NAME" />
  <ATTRIBUTE LABEL="JE BATCH KEY" NAME="JE_BATCH_KEY" />
  <ATTRIBUTE LABEL="NAME" NAME="NAME" />
  <ATTRIBUTE LABEL="ORG ID" NAME="ORG_ID" />
  <ATTRIBUTE LABEL="DESCRIPTION" NAME="DESCRIPTION" />
  <ATTRIBUTE LABEL="DATE CREATED" NAME="DATE_CREATED" />
</DIMENSION>
```


FIG. 23D

2304

```
- <DIMENSION LABEL="ORGANIZATIONS" NAME="ORGANIZATION_D">
  <ATTRIBUTE LABEL="ORGANIZATION" NAME="ORGANIZATION" />
  <ATTRIBUTE LABEL="ORGANIZATION KEY" NAME="ORGANIZATION_KEY" />
  <ATTRIBUTE LABEL="ORGANIZATION TYPE" NAME="ORGANIZATION_TYPE" />
</DIMENSION>
- <DIMENSION LABEL="PA PROJECTS" NAME="PA_PROJECT_D">
  <ATTRIBUTE LABEL="PROJECT KEY" NAME="PA_PROJECT_KEY" />
  <ATTRIBUTE LABEL="PROJECT COMPLETE DATE"
NAME="PROJECT_COMPLETE_DATE" />
  <ATTRIBUTE LABEL="PROJECT MANAGER" NAME="PROJECT_MANAGER" />
  <ATTRIBUTE LABEL="PROJECT NAME" NAME="PROJECT_NAME" />
  <ATTRIBUTE LABEL="PROJECT NUMBER" NAME="PROJECT_NUMBER" />
  <ATTRIBUTE LABEL="PROJECT OFFICER" NAME="PROJECT_OFFICER" />
  <ATTRIBUTE LABEL="PROJECT SPONSOR" NAME="PROJECT_SPONSOR" />
  <ATTRIBUTE LABEL="PROJECT START DATE" NAME="PROJECT_START_DATE" />
  <ATTRIBUTE LABEL="PROJECT STATUS" NAME="PROJECT_STATUS" />
  <ATTRIBUTE LABEL="PROJECT TITLE" NAME="PROJECT_TITLE" />
  <ATTRIBUTE LABEL="PROJECT TYPE" NAME="PROJECT_TYPE" />
</DIMENSION>
- <DIMENSION LABEL="PA TASKS" NAME="PA_TASK_D">
  <ATTRIBUTE LABEL="PARENT TASK KEY" NAME="PARENT_TASK_KEY" />
  <ATTRIBUTE LABEL="TASK LOCATION" NAME="TASK_LOCATION" />
  <ATTRIBUTE LABEL="TASK NAME" NAME="TASK_NAME" />
  <ATTRIBUTE LABEL="TASK MANAGER" NAME="TASK_MANAGER" />
  <ATTRIBUTE LABEL="TOP TASK NAME" NAME="TOP_TASK_NAME" />
  <ATTRIBUTE LABEL="TOP TASK KEY" NAME="TOP_TASK_KEY" />
  <ATTRIBUTE LABEL="TASK WBS" NAME="TASK_WBS" />
  <ATTRIBUTE LABEL="TASK START DATE" NAME="TASK_START_DATE" />
  <ATTRIBUTE LABEL="TASK NUMBER" NAME="TASK_NUMBER" />
  <ATTRIBUTE LABEL="TASK DESCRIPTION" NAME="TASK_DESC" />
  <ATTRIBUTE LABEL="PARENT TASK NAME" NAME="PARENT_TASK_NAME" />
  <ATTRIBUTE LABEL="PROJECT KEY" NAME="PA_PROJECT_KEY" />
  <ATTRIBUTE LABEL="TASK COMPLETE DATE" NAME="TASK_COMPLETE_DATE" />
  <ATTRIBUTE LABEL="TASK KEY" NAME="PA_TASK_KEY" />
</DIMENSION>
```

FIG. 23E

2305

```
- <DIMENSION LABEL="PERIODS" NAME="PERIOD_D">
  <ATTRIBUTE LABEL="PERIOD" NAME="PERIOD" />
  <ATTRIBUTE LABEL="PERIOD END DATE" NAME="PERIOD_END_DATE" />
  <ATTRIBUTE LABEL="PERIOD KEY" NAME="PERIOD_KEY" />
  <ATTRIBUTE LABEL="PERIOD START DATE" NAME="PERIOD_START_DATE" />
  <ATTRIBUTE LABEL="PERIOD TYPE" NAME="PERIOD_TYPE" />
  <ATTRIBUTE LABEL="QUARTER" NAME="QUARTER" />
  <ATTRIBUTE LABEL="YEAR" NAME="YEAR" />
</DIMENSION>
- <DIMENSION LABEL="PRODUCT" NAME="PRODUCT_D">
  <ATTRIBUTE LABEL="PRODUCT" NAME="PRODUCT" />
  <ATTRIBUTE LABEL="PRODUCT DESCRIPTION" NAME="PRODUCT_DESC" />
  <ATTRIBUTE LABEL="PRODUCT KEY" NAME="PRODUCT_KEY" />
</DIMENSION>
- <DIMENSION LABEL="PA PROJECT CLASSES" NAME="PROJECT_CLASS_D">
  <ATTRIBUTE LABEL="PROJECT CLASS CATEGORY"
NAME="PROJECT_CLASS_CATEGORY" />
  <ATTRIBUTE LABEL="PROJECT CLASS CODE" NAME="PROJECT_CLASS_CODE" />
  <ATTRIBUTE LABEL="PROJECT CLASS DESCRIPTION"
NAME="PROJECT_CLASS_DESCRIPTION" />
  <ATTRIBUTE LABEL="PROJECT KEY" NAME="PROJECT_KEY" />
</DIMENSION>
- <DIMENSION LABEL="PO REQUESTORS" NAME="REQUESTOR_D">
  <ATTRIBUTE LABEL="REQUESTOR" NAME="REQUESTOR" />
  <ATTRIBUTE LABEL="REQUESTOR KEY" NAME="REQUESTOR_KEY" />
</DIMENSION>
- <DIMENSION LABEL="SUB-ACCOUNT" NAME="SUB_ACCOUNT_D">
  <ATTRIBUTE LABEL="SUB-ACCOUNT" NAME="SUB_ACCOUNT" />
  <ATTRIBUTE LABEL="SUB-ACCOUNT KEY" NAME="SUB_ACCOUNT_KEY" />
  <ATTRIBUTE LABEL="SUB-ACCOUNT DESCRIPTION" NAME="SUB_ACCOUNT_DESC" />
</DIMENSION>
- <DIMENSION LABEL="AP VENDORS" NAME="VENDOR_D">
  <ATTRIBUTE LABEL="ACTIVE END DATE" NAME="ACTIVE_END_DATE" />
  <ATTRIBUTE LABEL="ACTIVE FLAG" NAME="ACTIVE_FLAG" />
  <ATTRIBUTE LABEL="ACTIVE START DATE" NAME="ACTIVE_START_DATE" />
  <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE1" NAME="ADDRESS_LINE1" />
  <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE2" NAME="ADDRESS_LINE2" />
  <ATTRIBUTE LABEL="VENDOR SITE ADDRESS LINE3" NAME="ADDRESS_LINE3" />
  <ATTRIBUTE LABEL="VENDOR SITE AREA CODE" NAME="AREA_CODE" />
  <ATTRIBUTE LABEL="VENDOR SITE CITY" NAME="CITY" />
  <ATTRIBUTE LABEL="VENDOR HOLD REASON" NAME="HOLD_REASON" />
  <ATTRIBUTE LABEL="VENDOR SITE PHONE NUMBER" NAME="PHONE_NUMBER" />
```

FIG. 23F

2306

```
<ATTRIBUTE LABEL="VENDOR SITE PROVINCE" NAME="PROVINCE" />
<ATTRIBUTE LABEL="VENDOR SITE STATE" NAME="STATE" />
<ATTRIBUTE LABEL="VENDOR TAX FEDERAL FLAG"
NAME="TAX_FEDERAL_REPORT_FLAG" />
<ATTRIBUTE LABEL="VENDOR TAX REPORTING NAME"
NAME="TAX_REPORTING_NAME" />
<ATTRIBUTE LABEL="VENDOR TAX STATE FLAG" NAME="TAX_STATE_REPORT_FLAG"
/>
<ATTRIBUTE LABEL="VENDOR 1099 NUMBER" NAME="VENDOR_1099_NUM" />
<ATTRIBUTE LABEL="VENDOR 1099 TYPE" NAME="VENDOR_1099_TYPE" />
<ATTRIBUTE LABEL="VENDOR CORPORATE GROUP"
NAME="VENDOR_CORPORATE_GROUP" />
<ATTRIBUTE LABEL="VENDOR INDUSTRY CLASS"
NAME="VENDOR_INDUSTRY_CLASS" />
<ATTRIBUTE LABEL="VENDOR KEY" NAME="VENDOR_KEY" />
<ATTRIBUTE LABEL="VENDOR NAME" NAME="VENDOR_NAME" />
<ATTRIBUTE LABEL="VENDOR NUMBER" NAME="VENDOR_NUMBER" />
<ATTRIBUTE LABEL="VENDOR ORGANIZATION TYPE" NAME="VENDOR_ORG_TYPE" />
<ATTRIBUTE LABEL="VENDOR PAYMENT PRIORITY"
NAME="VENDOR_PAYMENT_PRIORITY" />
<ATTRIBUTE LABEL="VENDOR PAY GROUP" NAME="VENDOR_PAY_GROUP" />
<ATTRIBUTE LABEL="VENDOR SITE CODE" NAME="VENDOR_SITE_CODE" />
<ATTRIBUTE LABEL="VENDOR SITE KEY" NAME="VENDOR_SITE_KEY" />
<ATTRIBUTE LABEL="VENDOR TYPE" NAME="VENDOR_TYPE" />
<ATTRIBUTE LABEL="VENDOR SITE ZIP" NAME="ZIP" />
</DIMENSION>
<DIMENSION LABEL="AP INVOICE DETAILS" NAME="AP_INV_DETAIL_F">
<ATTRIBUTE LABEL="ACCOUNTING DATE" NAME="ACCOUNTING_DATE" />
<ATTRIBUTE LABEL="ACCOUNTING DATE KEY" NAME="ACCOUNTING_DATE_KEY" />
<ATTRIBUTE LABEL="ACCOUNT KEY" NAME="ACCOUNT_KEY" />
<ATTRIBUTE LABEL="APPROVAL STATUS" NAME="APPROVAL_STATUS" />
<ATTRIBUTE LABEL="AP INVOICE KEY" NAME="AP_INVOICE_KEY" />
<ATTRIBUTE LABEL="AP INVOICE TYPE KEY" NAME="AP_INVOICE_TYPE_KEY" />
<ATTRIBUTE LABEL="AP PAYMENT TERM KEY" NAME="AP_PAYMENT_TERM_KEY" />
<ATTRIBUTE LABEL="BUYER KEY" NAME="BUYER_KEY" />
<ATTRIBUTE LABEL="COMPANY KEY" NAME="COMPANY_KEY" />
<ATTRIBUTE LABEL="INVOICE CURRENCY CODE" NAME="CURRENCY_KEY" />
<ATTRIBUTE LABEL="DEPARTMENT KEY" NAME="DEPARTMENT_KEY" />
<ATTRIBUTE LABEL="DUE DATE" NAME="DUE_DATE" />
<ATTRIBUTE LABEL="DUE DATE KEY" NAME="DUE_DATE_KEY" />
<ATTRIBUTE LABEL="TOTAL INVOICE AMOUNT" NAME="INVOICE_AMOUNT" />
```

FIG. 23G

2307

```

<ATTRIBUTE LABEL="INVOICE DATE" NAME="INVOICE_DATE" />
<ATTRIBUTE LABEL="INVOICE DATE KEY" NAME="INVOICE_DATE_KEY" />
<ATTRIBUTE LABEL="INVOICE DESCRIPTION" NAME="INVOICE_DESC" />
<ATTRIBUTE LABEL="INVOICE ID KEY" NAME="INVOICE_ID_KEY" />
<ATTRIBUTE LABEL="INVOICE LINE DESCRIPTION" NAME="INVOICE_LINE_DESC" />
<ATTRIBUTE LABEL="INVOICE LINE NUMBER" NAME="INVOICE_LINE_NUMBER" />
<ATTRIBUTE LABEL="INVOICE LINE TYPE" NAME="INVOICE_LINE_TYPE" />
<ATTRIBUTE LABEL="INVOICE NUMBER" NAME="INVOICE_NUMBER" />
<ATTRIBUTE LABEL="INVOICE TAX AMOUNT" NAME="INVOICE_TAX_AMOUNT" />
<ATTRIBUTE LABEL="ORGANIZATION KEY" NAME="ORGANIZATION_KEY" />
<ATTRIBUTE LABEL="PAID AMOUNT" NAME="PAID_AMOUNT" />
<ATTRIBUTE LABEL="PA PROJECT KEY" NAME="PA_PROJECT_KEY" />
<ATTRIBUTE LABEL="PA TASK KEY" NAME="PA_TASK_KEY" />
<ATTRIBUTE LABEL="PERIOD KEY" NAME="PERIOD_KEY" />
<ATTRIBUTE LABEL="POSTED FLAG" NAME="POSTED_FLAG" />
<ATTRIBUTE LABEL="PO CREATION DATE" NAME="PO_CREATED_DATE" />
<ATTRIBUTE LABEL="PO NUMBER" NAME="PO_NUMBER" />
<ATTRIBUTE LABEL="PRODUCT KEY" NAME="PRODUCT_KEY" />
<ATTRIBUTE LABEL="RECURRING INVOICE FLAG" NAME="RECURRING_INVOICE_FLAG" /
X
<ATTRIBUTE LABEL="SUB-ACCOUNT KEY" NAME="SUB_ACCOUNT_KEY" />
<ATTRIBUTE LABEL="TRANSLATED CURRENCY CODE"
NAME="TRANSLATED_CURRENCY_CODE" />
<ATTRIBUTE LABEL="VENDOR KEY" NAME="VENDOR_KEY" />
</DIMENSION>
</DP_DIMENSIONS>
- <MEASURES LABEL="AP INVOICE DETAILS" NAME="AP_INV_DETAIL_F">
  <MEASURE LABEL="ACCOUNTING (PRE-AP) LAG DAYS"
NAME="ACCOUNTING_LAG_DAYS" />
  <MEASURE LABEL="INVOICE LINE AMOUNT" NAME="INVOICE_LINE_AMOUNT" />
  <MEASURE LABEL="INVOICE LINE EXCHANGE RATE VARIANCE"
NAME="INVOICE_LINE_EXCH_RATE_VAR" />
  <MEASURE LABEL="INVOICE LINE PRICE VARIANCE"
NAME="INVOICE_LINE_PRICE_VARIANCE" />
  <MEASURE LABEL="NUMBER OF INVOICE LINES" NAME="NUMBER_INVOICE_LINES" />
  <MEASURE LABEL="TRANSLATED CURRENCY AMOUNT"
NAME="TRANSLATED_CURRENCY_AMOUNT" />
  <MEASURE LABEL="UNPAID AMOUNT" NAME="UNPAID_AMOUNT" />
</MEASURES>
</DP_SCHEMA_DOC>
  
```

FIG. 24

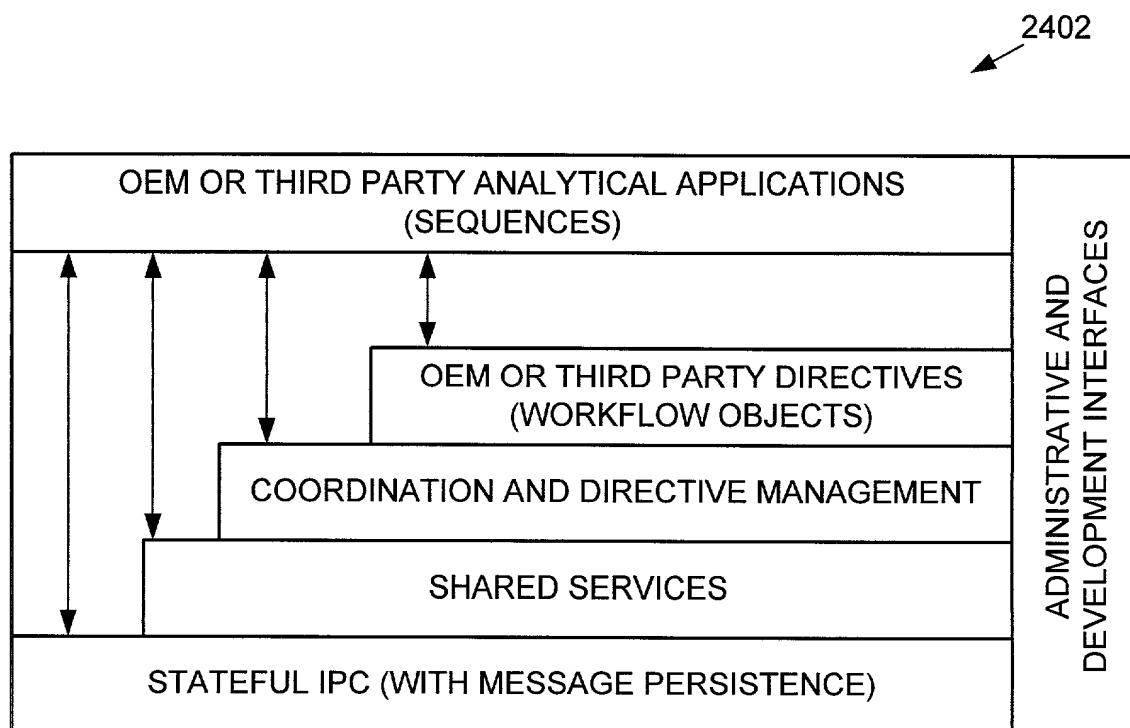


FIG. 25

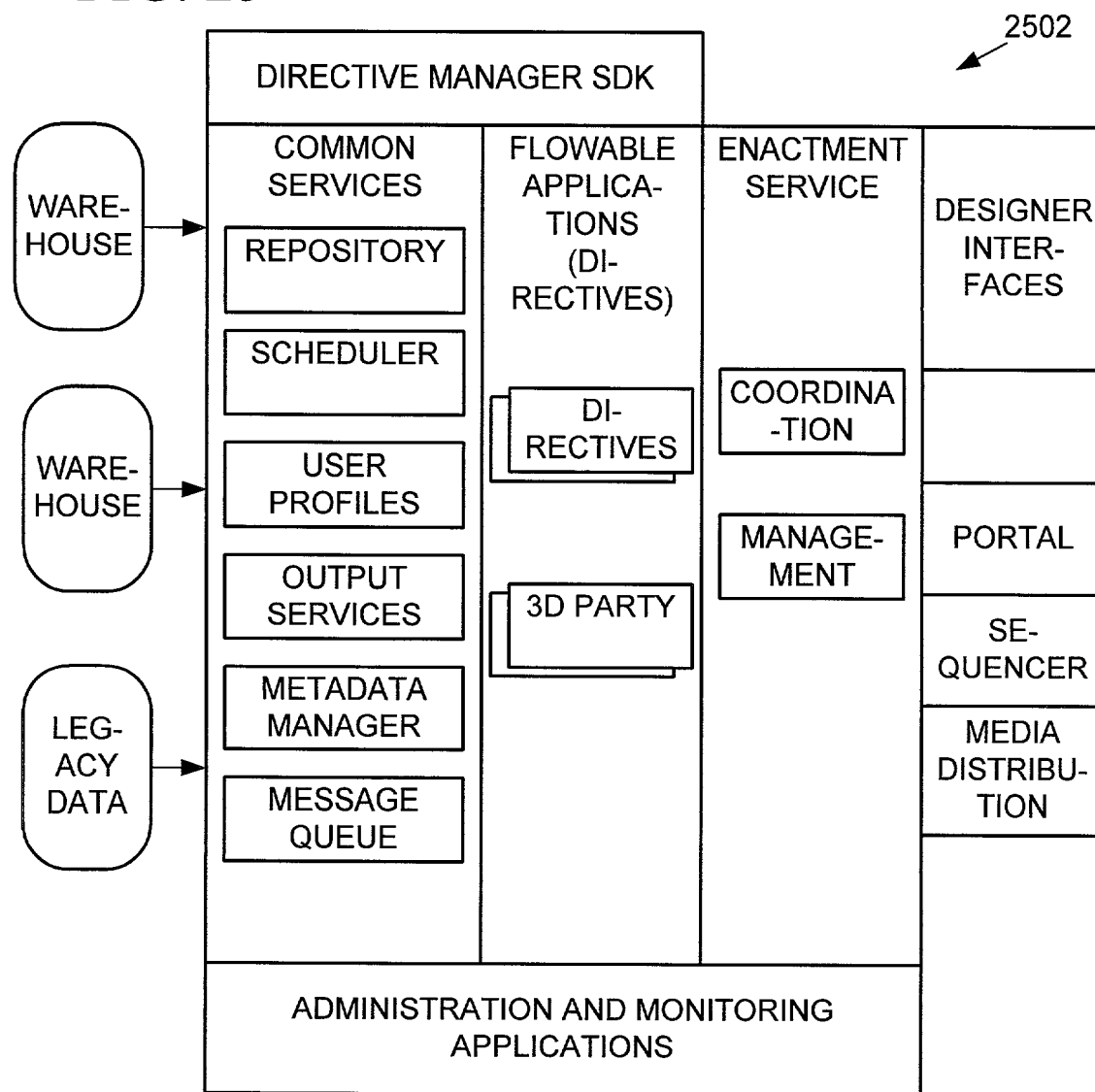


FIG. 26

